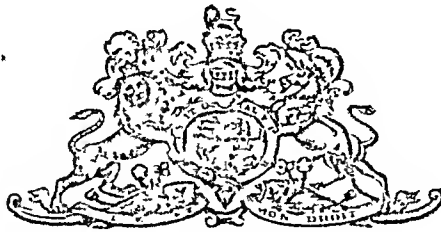


Indian Famine Commission, 1901.

APPENDIX, VOL. V.

EVIDENCE OF WITNESSES.

MADRAS, BENGAL, NORTH-WESTERN PROVINCES
PUNJAB AND AJMER.



CALCUTTA :
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1901.

CONTENTS.

PAGE.

(I) Questions drawn up by the Commission	1—6
--	-----

MADRAS.

(II) Witnesses who were not orally examined but sent in written replies—

1. Mr. C. M. Mullaly, I.C.S., Collector of the Nilgiris	7—11
2. „ J. Williams, Deputy Collector, Atmakuru Division, Nellore District	12—16
3. „ T. Renga Row Garu, Tahsildar of Kanigiri, Nellore District	17—23
4. „ R. Morris, I.C.S., Collector of Kistna	28—34
5. „ J. Ramiah Garu, Deputy Collector, Kistna District	34—38
6. Reverend F. Kurtz, Vinukonda	38—40
7. „ E. H. Mueller, American Lutheran Mission, Nara Saraopet, Kistna District	40—47
8. Mr. E. A. Elwin, I.C.S., Collector of Anantapur	47—52
9. „ T. Shunmuga Sundaram Pillai, Deputy Collector, Anantapur	53—56
10. „ R. C. C. Carr, I.C.S., Collector of Bellary	57—62
11. „ V. Srivatsanka Rao Pantulu Garu, Deputy Collector, Bellary	62—63
12. „ Muhammad Raza Khan, Collector of Kurnool	63—81
13. Reverend C. R. Marsh, Missionary, Kurnool	81
14. Mr. J. C. Johnston, Executive Engineer, Kurnool Division	82—107
15. „ H. O. D. Harding, I.C.S., Collector of Cuddapah	107—116
16. „ J. J. Cotton, late Sub-Collector of Cuddapah	116—128
17. Syed Kadir Bateha Sahib, Deputy Collector, Cuddapah	128—135
18. Mr. S. Adippa, Merchant, Kadiri, Cuddapah District	135—138
19. „ A. H. Morin, Executive Engineer, Cuddapah Division	138—145

BENGAL.

(III) Witnesses who were not orally examined but sent in written replies—

1. Mr. A. Forbes, C.S.I., I.C.S., Commissioner, Chota Nagpur Division	147—152
2. „ H. C. Streatfield, I.C.S., Deputy Commissioner, Ranchi	153—166
3. „ G. Balthasar, I.C.S., Deputy Commissioner, Palamau	167—172
4. „ F. W. Waid, I.C.S., Collector of Sahabad	173—176
5. „ C. H. Corbett, Assistant Superintendent of Police, Ranchi	177—181
6. Babu Krishna Kali Mukherji, Deputy Collector, Ranchi	183—186
7. Reverend Mr. K. Kiefel, Missionary, Govindpur, Ranchi	187—197
8. Mr. Romesh Chunder Datt, C.I.E., late of the Indian Civil Service	199—202

NORTH-WESTERN PROVINCES.

(IV) Witnesses who were not orally examined but sent in written replies—

1. Mr. A. H. Ashton, District Engineer, Jhansi	203—208
2. „ C. A. Silberrad, I.C.S., Magistrate of Jhansi	209—221
3. „ J. H. Simpson, I.C.S., Deputy Commissioner, Jhansi	223—232

PUNJAB.

(V) Witnesses who were both orally examined and sent in written replies—

1. Mr. R. Humphreys, Deputy Commissioner, Hissar	233—246
2. Captain R. L. Morris, late Famine Relief Officer, Hissar	247—254
3. Mr. A. E. Orr, late Executive Engineer, Hissar	255—263
4. „ S. W. Heidon, District Engineer, Hissar	265—270
5. Captain P. S. M. Burlton, Deputy Commissioner, Rohtak	271—293
6. Mr. W. MacDonald, late Executive Engineer, Rohtak	295—304
7. Captain P. M. Lewis, Deputy Commissioner, Karnal	305—318
8. Rai Bahadur Janki Pershad, Extra-Assistant Commissioner, Karnal	319—331
9. Colonel C. J. Bamber, Sanitary Commissioner, Punjab	333—367

(VI) Witnesses who were only orally examined but did not send in written replies—

1. Mr. G. C. Walker, Commissioner, Delhi	369—371
2. „ Bosworth Smith, Assistant Commissioner	373
3. „ R. Sykes, Director of Land Records and Agriculture	375
✓ 4. „ Lajpat Rai, Lahore	377—380

(VII) Witnesses who were not orally examined but sent in written replies—

1. Nawab Muhammad Afzal Khan, Khan Bahadur, Deputy Commissioner, Gurgaon	381—395
2. Military Assistant Surgeon W. C. M. Charters, Civil Surgeon, Gurgaon	397—403
3. Reverend S. S. Thomas, Principal, Baptist Mission Training Institution	405—408
4. Honourable Mr. H. C. Fanshawe, C.S.I., Commissioner and Superintendent, Delhi Division	409—415
5. Lieutenant J. T. Weston, Civil Surgeon, Hissar	417—418
6. Mr. J. M. Campion, Chief Engineer to the Punjab Government, Public Works Department	419—429
7. Mr. C. W. Loxton, Assistant Commissioner, Fatehganj	429—432
8. „ D. McGregor, District Engineer, Gurgaon	433—441
9. Miss Theobold. }	(Not printed.)
10. „ Aitken. }	
11. „ Bate. }	

AJMER.

(VIII) Witnesses who were both orally examined and sent in written replies—

1. Mr. F. St. G. Manners-Smith, Executive Engineer, Ajmer	443—468
✓ 2. Lieutenant-Colonel D. ff. Mullen, Administrative Medical Officer, Rajputana	469—479
✓ 3. Mr. A. L. P. Tucker, Commissioner	481—524
✓ 4. Major J. R. Dunlop Smith, C.I.E., late Famine Commissioner, Rajputana	525—534

(IX) Witnesses who were only orally examined but did not send written replies—

1. Reverend Mr. J. A. Brown, Missionary, Mewar	535—536
2. Seth Umed Mal, Banker	537
3. Rao Bahadur Pandit Sukhdeo Pershad, Famine Secretary, Jodhpur	539—545
4. Major E. C. Spilsbury, R.E., Superintending Engineer and Secretary	547—549

(X) Witnesses who were not orally examined but sent in written replies—

1. Captain C. T. Ducat, Assistant Commissioner, Merwara	551—566
---	---------

QUESTIONS DRAWN UP BY THE COMMISSION.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

2. Were the *khariif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

4. What percentage of a normal harvest on a normal cultivated area did the actual *khariif* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

(a) as petty cultivators?

(b) as labourers?

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following :—

(a) Test works,

(b) Poor-houses,

(c) Kitchens { (i) on works,
(ii) elsewhere,

(d) organisation of private charity, especially in towns.

(e) opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

(a) to arrange for village relief,

(b) to stimulate the local employment of labour,

(c) to organise local charity,

(d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and if so, were they successful—

(a) in securing the crop on the ground,

(b) as a permanent improvement,

(c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test works into regular relief works?

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened? large public works or small village works?

20. Under whose control were these works? Had the scale of supervising establishment been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? were tools and plant available?

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? and if so, what steps were taken to relieve the pressure?

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for putting or sheltering the people; for conservancy or sanitation; for water-supply; for food-supply; and for medical conveniences and supervision?

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (*e.g.*, by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distances from their homes did applicants for relief go?

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not, please specify the matters in which they were independent.

26. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 426 of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable? (*e.g.* in varying strata of hard and soft earth).

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

(a) from the administrative point of view?

(b) from the point of view of economy?

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Code task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the banias on the works? Please give reasons for your opinion.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it? Did the penal wage anywhere become the wage generally earned? if it did, to what do you attribute the fact, and what were its effects?

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

39. When people first came on a relief work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bunia?

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

41. Can you give, for two or three typical relief works, figures showing, at the time of greatest pressure, the number of relief workers earning—

(a) the full wage,

(b) the penal wage,

(c) a wage between the full and penal wage.

Did people remain long on the works on the penal wage?

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task work with a minimum wage, or piece work at favourable rates, and which in your experience is preferable?

44. Were Contractors employed at any stage of the famine?

45. Under the payment by results system were muster rolls kept up, or what arrangement was there by which on emergency the code task system could be promptly introduced?

46. Under whose orders was the price scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependants, providing tools and plant, marking out work and measuring it up, paying wages, imposing fines, conserving the water supply, and arranging for hospital requirements.

48. Under whose orders were tasks and wages stiffened or relaxed, (i.e., the Collector, the Commissioner, the Famine Commissioner or the Local Government?) Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority. If he acted in anticipation of sanction was he often over-ruled.

51. Were arrangements made at any time to draft people from large public to small village works; what was the occasion calling for transfer; and with what success was the transfer achieved?

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

53. What classes of works did they include?

54. Were they conducted

(a) under the supervision of the Public Works Department,

(b) under the supervision of the Civil Agency,

(i) by direct management,

(ii) through landholders or by means of other non-official agency?

55. If conducted under (b) (ii) of the last question, what arrangements were made

(a) for laying down the work,

(b) for measuring it up,

(c) for paying wages?

How far were the landholders and others responsible administratively and financially; and under whose supervision was the work done?

56. Was any attempt made to work the Code task system? What scale of wages was adopted? Was employment given to every one who wanted it, or only to special classes?

57. Was any system of selection of applicants for relief tried? If so, was it successful or not?

58. If large public and small village works existed close to one another, did either draw labourers from the other?

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

62. Were able-bodied persons engaged at any time on works of private utility at public expense (*e.g.*, weeding fields, etc.)? and, if so, to what extent, at what stage, for how long and under what control?

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

65. If special relief measures for artisans were taken, were they successful from the point of view of (a), relief (b) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68. How were dependants relieved—

(a) on large public works,

(b) on small village works,

in cash or uncooked grain or with cooked food?

69. Statistics have been called for, but which of the recognized forms of gratuitous relief was most employed in your district, and on what grounds was it chosen?

70. Did the distribution of village relief in your district go beyond the classes mentioned in paragraph 141 of the report of the Famine Commission of 1880? If so, were the recipients of gratuitous relief selected by persons with local knowledge or were they admitted to relief because they complied with some test such as eating cooked food? Please enumerate the tests, if any, by which admission to gratuitous relief was restricted.

71. How many poor houses were open in your district, and when were they opened. What classes of people most frequented them; and were the numbers ever large?

72. Were poor houses used as dépôts for vagrants and immigrants; and were persons who refused to work on relief works sent to poor houses as a punishment?

73. Were measures taken periodically to weed out the poor houses and send people to their homes or to relief works?

74. Statistics have been called for, but how many kitchens were opened in your district, (a) before and (b) after the rains broke? What radius was a kitchen expected to serve?

75. What ration was provided and how often were meals distributed, and at fixed or varying times? Were people compelled to feed on the premises or were they allowed to take food away?

76. Was any limit of distance from relief works fixed, within which civil kitchens could not be opened? or were civil kitchens opened close to relief works?

77. Was admission to kitchens free or restricted; and if restricted, what was the method of selection for admission?

78. What was the poor house ration and of what grain; was it varied on occasion to meet the case of sickness or weakness?

79. Who drew up the village gratuitous relief lists, by whom were they checked; how often and by whom were the recipients inspected?

80. How was payment made, (a) in cash or grain, (b) daily, weekly, monthly or for any other period, (c) at the homes of the recipients or elsewhere?

81. To what persons except those mentioned in the Code was gratuitous village relief given; for how long and under what necessity?

82. What castes of cooks were employed? Was any reluctance to take cooked food shown by any classes and at any stage; and if so by what classes and at what stage?

83. What persons were in charge of kitchens; what supervision and check was exercised over them?

84. Were cheap grain shops opened; if so for what classes and how was admission to their benefit regulated? Was this form of relief successful and what did it cost?

85. Did cheap grain shops in any way discourage the importation of grain; or did they affect general prices?

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

94. What system of registration of births and deaths is followed?

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

103. Have you any suggestions to make regarding the classification of the objects of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104(a). What arrangements were in force to keep you informed of the traffic in food grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon

(1) the number of people seeking relief,

(2) the death-rate,

of any changes in—

(a) the system of work (*e.g.*, a change from Code task to payment-by-results system),

(b) the task,

(c) the scale of wages,

(d) the mode of calculating fines,

(e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

ENCLOSURES.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY C. M. MULLALY, Esq., I.C.S., LATE COLLECTOR OF NELLORE AND NOW COLLECTOR OF THE NILGIRIS.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
- (b) as labourers?

Detailed information and statistics submitted from Nellore. No particulars available here.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

6. Necessity for relief was *not* assumed from the fact of crop failure. Proof of necessity was required by compliance with tests.

7. 1. Loss of crops.

2. Rapid rise in prices.

3. Clamour for remissions and labour.

4. Reports from subordinates.

5. Migration of cattle.

6. Slight increase in crime, but I observed no emaciation or deaths from starvation nor wandering to any great extent. There was the usual migration to the Kistna and other delta tracts in search of labour. The general condition of the unattached day-labourer, chiefly Malas and Madigas (Pariahs and Chueklers), was so poor that it caused anxiety and required careful watchfulness, for they have little resisting power.

Questions.

Answers.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test-works,
- (b) Poor-houses,
- (c) Kitchens { (i) on works,
(ii) elsewhere,
- (d) organisation of private charity, especially in towns,
- (e) opening the Government forests.

12. What system of local inspection and control was instituted and at what period:—

- (a) to arrange for village relief,
- (b) to stimulate the local employment of labour,
- (c) to organise local charity,
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and if so, were they successful—

- (a) in securing the crop on the ground,
- (b) as a permanent improvement,
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

8. Particulars should be obtained from Nellore. The main forms of relief were suspension and remission of revenue, loans for wells and fodder, and grants for water-supply. Test-works were opened and strict tasks enforced.

9. (a) A complete famine programme was ready with works located and estimates ready except in the case of a few large works, the estimates for which were under preparation by the Department of Public Works.

(b) The relief programme did not to the best of my recollection include scales of establishment necessary to meet any emergency, nor were lists of candidates qualified for famine service kept up.

10. Large public works were the backbone of the system, but a programme of village works was ready in reserve from the beginning.

11. The sequence was as follows:—

- 1st.—Opening Government forests.
- 2nd.—Test-works.

No poor-houses or kitchens were opened. Collections were raised for the General Famine Fund, but no expenditure was made. The Baptist Mission was very active in organizing private charity, but particulars are not to hand.

12. The ordinary establishment was employed for local inspection and control, and fortnightly reports submitted and special reports when necessary.

13. Loans were issued liberally at the outset both under the Land Improvement and Agriculturists' Loans Acts under the usual conditions to pattadars chiefly for wells and fodder. They were recoverable in whole.

14. Irrigation wells can be made in Nellore district. They were encouraged to the utmost extent by loans and were, as a rule, successful in (a), (b) and (c).

The benefit of wells was most conspicuously shown in Kanigiri taluk.

15. At first it was proposed to expand ordinary works under Local Boards and the Department of Public Works, but under the order of Government (so I remember) relief was restricted to works under strict test conditions. Works for improvement of water-supply were conducted under the supervision of the District Board Engineer, all others under the Executive Engineer to the Public Works Department.

Questions.

16. What tasks were exacted on test-works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test-works into regular relief works?

	*	*	*
19 to 51.	*	*	*
52 to '59.	*	*	*
60 to 67	*	*	*
68 to 81	*	*	*

Answers.

16. Already reported in strict accordance with rule.

17. Payment was made in strict proportion to results. There was a maximum wage, a minimum wage, a rest-day allowance and an allowance for dependants.

18. The test-works failed to attract labour and were accordingly closed. No regular relief works were started.

	*	*	*
19 to 51.			
52 to 59.			
60 to 67.			
68 to 81.			

19 to 51. Large public works—*Nil*.

52 to 59. Small village works—*Nil*.

60 to 67. Special relief—*Nil*.

68 to 81. Gratuitous relief—*Nil*.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. Amount suspended and remitted has been reported from Nellore.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

83. Remissions or suspensions were based solely upon crop failure.

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

84. Remissions or suspensions were determined before collection of revenue began.

85. In zamindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

85. In zamindari tracts (to urge recollection) no suspension or remission of revenue was allowed, nor did the zamindars to my knowledge grant any suspension or remission.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. As far as I could judge, sufficient relief was given by suspension and remission of revenue.

With the exception of one petty case in Nellore taluk, I observed nothing to show that such relief had been abused or had failed to reach the right persons.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. No.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. I do not consider that relief was at any particular period excessive or defective.

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. Those who attended the test-works were temporary day labourers, chiefly Malas and Madigas (Pariahs and Chuklers). Proprietors, State ryots, occupancy tenants and other tenants with security of tenure did not resort. The scarcity was not such as to make such people even contemplate work on test conditions.

Questions.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

94. What system of registration of births and deaths is followed?

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

97 to 103. * * *

104. Did you hear any complaints regarding the inability of the railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

Answers.

90. Yes. With the increase in population and improvement in communications the bond between the land-holder and his labourers has relaxed. Formerly the surplus of a good season was stored in the village and enabled master and servant to tide over to bad year. Nothing was expected from the Sirkar, but now with railways and telegraphs there is a brisk grain trade. When rains fail, the surplus stock realizes famine prices and the labourer is handed over to the State for support. The temporary day labourer is not a free agent nor has he any resources, formerly he looked to his master now to the State.

91. There was considerable contraction of private credit due partly to dread of the Vikari year and to the war in South Africa. In my tours I was often told that the sowars would not lend. Money was very tight. Sowars endeavoured to get in all their outstandings and refused fresh loans. Even notes were at a discount and silver coin was somewhat scarce.

Far from there being a reluctance to accept State relief, there was a demand and clamour for it. The people endeavoured to husband their own resources and get what they could from the State. There was no stigma attached to State relief.

92. The tests of the Code, if strictly enforced, are sufficient to prevent persons not in need of relief from seeking it. The difficulty is in applying the tests.

93. I do not consider any method of selection for admission to relief to be practical.

94. The one in force in the Presidency.

95. Statistics do not show a very high mortality.

96. Insufficiency of water-supply was greatly felt throughout the district. Allotments were made as far as funds were available, but they were insufficient.

This question of water-supply has not hitherto received the attention it deserves except in a few large towns. The paltry annual allotments made from Local Funds are wholly inadequate and there is scarcely a village which has good drinking-water. The want of this main necessity of life is felt more than any other, but to supply it would necessitate a drinking water-cess. The advisability of imposing such a cess and insisting on a systematic improvement of drinking-water supply is worthy of consideration.

97 to 103.

Nil.

104. The railways were quite able to keep pace with the grain and fodder traffic. The chief local complaint was against the railways for carrying away the grain too quickly and thus raising prices.

Questions.

104 (a). What arrangements were in force to keep you informed of the traffic in food-grains by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

105. * * *

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109 and 110. * * *

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (e.g., a change from Code task to payment by results system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organization of relief works whereby these evils may be removed or mitigated?

Answers.

104 (a) Endeavour was made to get traffic returns from the railways, but the statistics were not reliable.

105. Nil.

106. (a) In nearly all lands there is the early and the late crop.

(b) There is said to be an increase in crops for export, e.g., cotton, castor, linseed, &c., as against food-grains.

107. Wages in grain still prevail, but in large towns the tendency is towards money wage for day labourers. Cash wages have not risen in proportion to rise in prices, hence the pinch. Fluctuations in price are more rapid than changes in cash wages.

This is a large question and statistics were under preparation in Nellore when I left.

108. The provisions of the Code were strictly adhered to.

109. and 110. Nil.

111. Figures not available.

112. The evils are inseparable from the massing of labourers on all large works, but are more noticeable on famine works as the people are more reckless. I can suggest no remedies. Elaborate precautions to preserve morality cannot be attempted when the utmost endeavour is to preserve life.

20th February 1901.

(Signed) C. M. MULLALLY,
Collector.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY
M.R.Rx. J. WILLIAMS, DEPUTY COLLECTOR, ATMAKURU DIVISION,
NELLORE DISTRICT.

THE REPLIES HEREIN GIVEN RELATE TO UDAYAGIRI TALUK ALONE WHICH WAS THE ONE
THREATENED WITH FAMINE IN 1899.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. This taluk is one of the poorest, if not the poorest, in the district. The cultivation is mostly dry and dependent on rainfall. The year 1897 was one of very deficient rainfall, the fall being only 18.06 against an average of 28.09, and the taluk suffered considerably from an acute form of distress and relief measures were brought into full operation. In the following year (1898) there was copious fall of rain, the total fall being 29.53 inches against the average of 28.09 inches. Though 1898 was a good year, at the commencement of the rains of 1899 the population had not wholly recovered from famine of 1897. In April and May 1899 there was a rainfall of 6.19 inches, the fall being the highest on record for that period, the average in the same months being 2.33. This, however, was not of much agricultural value as no crops are during this period raised save isolated patches under wells. The outlook of the taluk was at the commencement of the rains of 1899 favourable on the whole and there were no indications of any famine.

Of the two preceding years 1897 and 1898, the latter, as already stated, was a good year, while in the other there was failure of crops necessitating the adoption of relief measures, suspension of kistbandi and large remissions. The rainfall registered in the three years ending 1899 was $\frac{18.06}{1897}$, $\frac{29.53}{1898}$ and $\frac{12.78}{1899}$, respectively. The harvests in the three years are compared below:—

—	1897.	1898.	1899.
20 annas ..	294	..	..
16 " ..	596	1,937	531
12 " ..	6,706	11,922	20,568
8 " ..	20,404	..	..
6 " ..	..	37,765	21,406
4 " ..	23,274	..	..
3 " ..	..	19,014	16,573
0 ..	22,262	3,584	12,330

2. The figures eloquently indicate the nature of harvests and further remarks are unnecessary.

Questions.

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

Answers.

The *kharif* sowings of 1899 were as shown in the margin and were only 90 per cent. of the normal area.

Normal area ..	62,343.83
<i>Kharif</i> of 1899.	56,711

As already stated the months of April and May 1899 opened the year very favourably with a rainfall of 6.19 inches though the rain was not of much agricultural value. In the succeeding months which are the months for sowing early crops, the rainfall recorded was only 2.34, and though in the outlying villages the fall was better, yet there was a great reduction in the sowings up to end of September 1900. The north-east monsoon, however, gave some hopes and with the October rains which were somewhat better, the anxious ryot brought as much land as possible under the plough. October rains were also somewhat better outside the cusbah headquarters. This fact accounts for the slight fall in sowings as compared with normal.

The normal area arrived at represents the average of the *kharif* sowings of the preceding six normal years which are 1892, 1893, 1894, 1895, 1896 and 1898, a normal year being always taken to mean the year in which there is no widespread failure of dry crops necessitating remissions or suspension of kist. When the dry crops are affected, as a matter of course the wet crops are likewise more or less affected and the condition of dry crops alone is taken as criterion in deciding whether a year is normal or otherwise.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

(a) The rainy season in these parts is generally restricted to the part of the year during which both the monsoons are in full force. The period may be reckoned as that extending from June to December. The average rainfall during the rainy season, excluding the famine years 1876, 1891 and 1897, is 27.19 inches.

(b) The actual rainfall in the rainy season of 1899 was 4.25 inches which represents 25.44 per cent. of the average rainfall.

(c) The rains ceased with 12th December 1899.

(d) The following figures compare the rainfall from June to September 1899 with the average of the past 26 years excluding the famine years 1876, 1891 and 1897 for the corresponding period:—

—	June.	July.	August.	September.	Total.
1899 ..	0.27	0.15	1.03	0.89	2.34
Average ..	1.20	1.92	2.25	3.00	8.37

The distribution is strikingly poor in all the months. This is, as I said formerly, according to the rain recorded in the head-quarters, but in the outlying villages the fall was better.

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

The *kharif* harvests of 1899 represent 82 per cent. of a normal harvest on a normal cultivated area.

Questions.

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

Answers.

It is not possible to furnish information under the head with any degree of accuracy except relying for information upon the census tables of 1891. Even these tables contain the number of landholders in whole without distinguishing how many of them are petty cultivators. The village registers contain information under this head only for Government and shrotriem villages in the taluk, which contains a majority of zamindari villages. It would appear nearly 75 per cent. of the landholders are petty cultivators. Information as regards labourers is however available in the census tables. It will be seen from them that petty cultivators and labourers represent 30 and 15 per cent. respectively of the total population.

* Population of the taluk ..	100,227	
Petty cultivators = $\frac{3}{4}$ of landholders		
40,262 or	30,272	
Labourers ..	14,745	

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. The necessity for relief was not assumed by failure of crops which only gave a warning note for watchfulness. Ariga crop, which is one of the chief staple food-grains of the taluk, was almost lost and this necessitated watchfulness on the part of the officers as regards the general condition of the taluk and of the agricultural cooly classes in particular. In the early part of the famine of 1897 the failure of crops and the clamour of the labouring classes in a locality which seemed to have suffered most led to the starting of test-works. When they were actually opened, only a few attended. This experience made the superior staff responsible for the taluk not to be deceived with mere appearances, and it was arranged that test-works should be insisted on before necessity for relief was recognized.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. No particular facts were observed and no relief measures were set in motion as the condition of the taluk did not necessitate the adoption of such measures.

A number of agricultural coolies were found going to other parts of the taluk and sometimes to other taluks where there were harvesting operations, and this fact suggested that the lack of work locally was the result of such migration. But enquiries showed that this was usual during the harvest time.

8. What particular relief measures did you first undertake, and what tests were applied to gauge the extent of the distress?

8. A number of minor irrigation works estimated for by the Tank Restoration Scheme Party were under execution by the Public Works Department agency at ordinary rates in and around the tract most affected. These did not attract the agricultural labourers from the threatened tract save the professional Wadders. One Minor Irrigation work under the Revenue Department and a number of Local Fund works, such as the clearance of prickly-pear and deepening of wells, were under execution in the affected tract. Neither these did show that any necessity existed for relief measures. Since these ordinary works failed to attract labour, no relief measures were undertaken.

Questions.

Answers.

9. How were you prepared to meet famine?—
 (a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following :—

- (a) Test works.
- (b) Poor houses.
- (c) Kitchens { (i) on works.
 (ii) elsewhere.
- (d) Organisation of private charity, especially in towns.
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

9. Programme of famine-relief works had been drawn up. Both small and big works were available for being undertaken with the least possible notice.

(a) The lists were ready. The estimates were also ready in the case of almost all the small works and in the case of road works. One or two works, e.g., the Gandipalem project, was not ready, but measures were being adopted to take up that work, should a severe famine occur.

(b) No, as there were no orders from higher authorities to keep up such lists. Such lists are generally called for when relief works are imminent and these could then be prepared with greater degree of accuracy according to requirements. The Revenue officers, however, are in a position to state at a short notice what candidates are in their charges qualified for famine service.

10. Large works are considered as the backbone of relief system and such have been selected and these in this taluk are mainly roadworks as Gandipalem project is not yet fully matured.

11. Nil. No relief measures were started, but owing to scarcity of fodder Durgam hill and Yerrakondas were thrown open for free grazing and cutting grass up to 30th June 1900.

12. (d) Owing to complete failure of ariga crop, one of the important food-grains of the taluk, which occurred by the end of September, a close watch of the taluk was commenced by constant touring of the Divisional Officer, the Tahsildar and the Revenue Inspectors. These inspections showed that no relief measures were required but that improvement of water-supply in most of the villages for drinking was necessary, and these were readily undertaken by the Taluk Board. In these inspections also the ryots were stimulated to deepen or repair their irrigation wells or sink new ones and applications for State loans were encouraged.

13. Loans were issued at the outset of 1899 under Land Improvement Loans Act and Agriculturists' Loans Act as per statement enclosed. The conditions under which the loans were advanced and the other particulars required are given in the statement in detail. No loans were granted for relief of distress as no necessity arose for the adoption of such a measure.

14. There is already a large number of wells in the taluk and there is still scope to make a large number more as nearly half of the taluk is full of good valleys and springs are likely to be tapped though at a somewhat great depth. If the use of long pumps is introduced and some springs successfully tapped, it is likely that more wells will be sunk by the ryots. In the majority of wells the depth of water during the critical period ranged from 1 to 3 feet. The other wells dried up.

Questions.

Answers.

During the period, some agriculturists improved their wells by deepening and widening them further so as to serve them satisfactorily in similar bad years in the future. The grant of loans was a boon to them. The digging was successful in securing the crop on the ground in some cases. On the whole the digging of wells in that period was done more as a permanent improvement than to afford labour to the labouring classes.

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under District or Local Boards? and under whose supervision were they conducted?

15. Demand for labour was taken as a criterion of the need for relief. Clearing of prickly-pears in village-sites and improvement of sources of drinking water under the Taluk Board were first undertaken under the supervision of the Tahsildar. These were ordinary works and their execution did not show that cooly classes were in real need of relief.

16. What tasks were exacted on test-works, and was the same task taken from every one irrespective of sex and previous occupation?

16. Nil. No test-works were undertaken.

17—81. * * *

17—81. * * *

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. (a) The land revenue collections were not suspended in any case.

(b) A sum of Rs. 1,447-4-0 was remitted on account of wet waste and a further sum of Rs. 3,830-13-9 on account of other remissions on wet lands.

Owing to paucity of rainfall and the consequent deficient supplies in irrigation works, wet lands had to be cultivated with crops purely dry and the application of the provisions of the Standing Order No. 23-A became necessary. A sum of Rs. 423-11-3 was remitted under this head and it is included in the sum of Rs. 3,830-13-9 shown under other remissions.

3rd March 1901.

(Signed) J. WILLIAMS,
Deputy Collector.

ENCLOSURE.

STATEMENT referred to in answer to Question 13 *supra*.

Act.	Amount of loan.	Condition of grant.	Classes to whom granted.	Objects of the loan.	Recoverable in whole or in part.
Land Improvement Loans Act.	Rs. 1,040	Under the general conditions contained in form of loan order No. 8 appended to rules under the Loans Acts.	Agriculturists ..	Repairs to wells ..	Repayable in whole (in 30 instalments).
	60			Do. ..	Repayable in whole (in 15 instalments).
Agriculturists' Loans Act.	300			Reclamation of land.	Repayable in whole (in 10 instalments).
	180			Purchase of ploughing cattle.	Repayable in whole (in 7 annual instalments).
Total ..	1,580				

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY M.R.EY. T. RENGARAU GARU, TAHSILDAR OF KANIGIRI,
NELLORE DISTRICT.

Questions.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

Answers.

1. The outlook in the district and in the Kanigiri taluk when the rains of 1899 commenced in April was normal. In Kanigiri the harvest of 1897 was, on the whole very poor, with only 17 per cent. from 5 to 8 annas, 26 per cent. from 1 to 4 annas and 57 per cent. *nil*. 1898 was a normal year with nearly 50 per cent. of the harvest being 8 annas or more, 35 per cent. being 4 annas and above to 8 annas, and the remaining 15 per cent. falling below 4 annas to *nil*.

2. The *kharif* sowings were up to normal.

	ACS.
Average of previous years ...	42,733
Actuals	42,599

INCHES.

3. (a) District (excluding January, February, March) 33.13

Kanigiri (excluding January, February, March) 23.51

(b) District 25.57

Kanigiri 14.38

Percentage of average—

District 77

Kanigiri 61

(c) District, practically at the end of October.

Kanigiri, practically at the end of October; but even the fall of October represented only 35 per cent. of the average for the month.

	Average.	Actual.
(d) District—		
June ...	1.65	0.73
July ...	2.35	0.84
August ...	3.22	2.51
September ...	4.05	3.70
Kanigiri—		
June ...	1.63	0.56
July ...	2.28	0.44
August ...	2.23	2.63
September ...	3.81	3.02

4. The actual *kharif* harvest of 1899 represented 66.66 per cent. of a normal harvest on a normal cultivated area.

5. Kanigiri taluk—

(a) 37 per cent. of the total population of the taluk.

(b) 13 per cent. of the total population of the taluk.

6. The taluk passed through a severe season, but there was no famine. I sounded a note of warning in time as to the necessity of relief and gave my opinion that the situation was accentuated by a number of causes—inadequate harvest, intense weather, abnormally high prices, inadequacy of drinking water, insufficiency of water, commencement of sickness (human and cattle), and, above all, failure of rain from October 1899. Proof of necessity was also required by compliance with tests.

Questions.

Answers.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

(a) Test works.

(b) Poor houses.

(c) Kitchens { (i) on works.
(ii) elsewhere.

(d) Organization of private charity, especially in towns.

(e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

(a) to arrange for village relief?

(b) to stimulate the local employment of labour?

(c) to organize local charity?

(d) to observe the general condition of the people?

7. All the facts which are grouped in my reply to query 6.

8. Irrigation works, mainly earthwork. I said above that the taluk passed not through famine, but experienced only a severe season. So that, the relief measures were very few. The intermediate test system, by which sympathetic gangs were formed and work was paid for by results with no foreman to supervise and the rate calculated cutting out contractors' profits, was applied to gauge the extent of distress.

9. (a) The lists of relief works were ready and several works on that list had been actually located, but in some cases surveys and estimates of cost had not been made out beforehand. (b) The relief programme did not include scales of establishment necessary to meet any emergency. Lists of candidates qualified for famine service were not kept up.

10. The relief programme contemplated small village works as the backbone of the relief system.

11. I said above that relief measures adopted here were very few. Among those adopted, the order of sequence was "test works" first and then the opening of the Government forests.

12. The Tahsildar was constantly on the move and he was helped by Revenue Inspectors. They were to inspect the situation of the affected tracts and inquire into the condition of the poorer classes, such as the Malas and the Madigas. The landless labourer attracted the first attention. The state of crops, the extent of irrigation available, the course of prices, the nature of the country, the state of the market—all these—were reported on in fortnightly narratives instituted from the commencement of January 1900. Inquiry commenced in November 1899 and continued with monthly reports. Fortnightly narratives, as prescribed in the Famine Code, were started in January following after treating the taluk as affected. The Commissioner arrived in the district. The Collector and the Sub-Collector made constant inspections and the system of fortnightly reports continued up to the end of September 1900.

(a) Village relief was arranged for by providing drinking water where the local wells dried or silted up. This gave the village a better supply and the people some labour. The cattle, which were either undorfed or were near starving, were allowed free grazing in the Government reserves—Nandana vanam, Vedulacheruvu, etc.—which were thrown open.

(b) The Raja of Venkatagiri was repeatedly requested to put into execution the irrigation and other works which had been sanctioned, as this might be of local relief. Minor irrigation works, which were sanctioned for execution in this taluk, were given on contract to village officers subject to conditions under which the works were to spread over longer periods by fixing the maximum number and the distance (5 miles) which was to form the radius within which the workers were to be drawn. Further, the really necessitous were to have the preference over the professional

(c) It was too soon and nothing was done to organize local charity.

(d) I made it generally known by notification to the people that large public works were in progress and that there was demand for labour which it was open to the people in need to supply. In a word, I connected the localities of plenty and of want; the first afforded work and wages, the second supplied labour, but, on the whole, the supply of labour was rather meagre. A careful vigilance was kept by the taluk inspecting officers to see that the people did not actually suffer from short commence, that they got some work either in the village on the field or elsewhere on some work.

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

13. In two cases loans were issued. In one case, it was a second instalment of Rs. 25 which does not properly fall under the answer to the present query. In the other case, it was an amount of Rs. 50 under the Land Improvement Loans Act, paid in two instalments of Rs. 25 each, but before the man completed the work and the instalments of repayments were fixed the man returned the loan. The amount was taken for repairing a well which was running dry, rather for deepening it.

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

14. Irrigation wells can be made in this taluk, and, as a matter of fact, irrigation wells are the mainstay of this taluk. There are nearly 2,500 irrigation wells in the 34 Government villages. There are several in the Venkatagiri and the Kálahasti zamindari villages.

(a) in securing the crop on the ground?
(b) as a permanent improvement?
(c) as a temporary measure to employ labour?

On the cessation of the rains in 1899, the affected portion of the taluk did not contain, on an average, more than 4 feet depth below the surface of water. Some were in spring and some were not, with the result that they ceased to play for irrigation.

I advised the ryots to dig wells by loans, but they did not come forward.

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

15. Two tank works, *i.e.*, the restoration of the Timmareddipalli tank and the repair of the Gudipatipalli tank, were first undertaken. They were not ordinary works under the district or local boards. They were conducted under the immediate supervision of the Public Works Department (an Overseer was in charge of it) subject to the general control of the Collector.

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

16. I extract from remarks which accompanied the season report for the week ending 2nd March 1900 as they throw light on some queries.

" The most noteworthy feature now is the opening of two works by the Public Works Department, evidently to gauge the extent of distress—the restoration of the Timmareddipalli tank and the Gudipatipalli-Sivayya tank. In and around the village of Timmareddipalli, the situation has been normal enough, and in my personal opinion the work at this locality might well have been somewhat delayed. Gudipatipalli evidenced more crisis, but workers left the locality in numbers to the adjoining taluk of Cumbum of the Kurnool district.

" 2. The Timmareddipalli work was started on the 12th February. From that date until the 18th February work was confined to the removal of prickly-pear; the number started with 38, rose to 219 on the 17th and fell to 217 on the 18th. Wages were paid at 2 annas a day, rather liberal to start with, but I understand at the time the scale was not finally got up. Earthwork commenced on the 19th with 61 persons belonging to two villages; the number rose to 65 on the 20th and belonged to three villages. The number dwindled, and on receipt of payment they struck work on the 22nd, and the work remains closed for the present.

" 3. A rate of Rs. 1-12-0 per 1,000 cubic feet of earthwork done, and of As. 6 for sectioning was allowed. Sectioning includes ramming. As a matter of fact, Rs. 1-15-0 was paid both for earthwork and for a little ramming done by the gangs. It will be interesting to compare the outturn and the wages earned by gangs. I give two typical cases below:—

" (1) *Pedagollapalle*.—4 men, 4 cubic yards, 40 pies; 10 pies a male a day from 10 A.M. to 6 P.M.; distance 1½ miles from spot.

" (2) *Vemulapad*.—5 miles; 16 men, 14 women, 8 children; 100 units a day or 200 units for two days. Thirty-six cubic yards=30 annas, 1·8 pies a unit (child) or 7·2 pies a man, from 9 A.M. to 5 P.M. each day. The maximum and the minimum wages earned on the work were 10 pies and 7·2 pies a day by a man.

" 4. This accounts for why the people struck work. On the 1st March, the Executive Engineer and myself inspected the spot. About 25 workers from Vemulapad met us and asked for wages by the day or at higher rates. No case was made out for higher rates and on principle wages by the day were not called for. We explained the system to them and they left without undertaking any work.

" 5. This morning we reached Gudipatipalli, where the corresponding information is as below:—

" Work commenced on the 25th February and is in progress.

Questions

Answers.

	Men.	Women.	Children.
" 25th February ..	13	6	7
" 26th ..	21	19	13
" 27th ..	14	10	1
" 28th ..	16	13	5
" 1st March ..	28	20	12
	92	68	38
	4	2	
	368	136	
	136		
	38		

542 Units

" (children). Outturn wages earned Rs. 8-3-2 or 1,574 pies. Average per unit 2-90 pies or 11-6 pies per man per day.

" Going into details, the gangs showed their outturn as below :—

" No. 1. gang—25th and 26th February, 5 men, 1 woman, 1 child, or 46 units; 90 pies, 8 pies a man a day.

" No. 2. gang—25th and 26th February, 4 men, 2 women and 3 children, 46 units; 113 pies a day, 2 46 pies a unit or 9 84 pies a man a day.

" 27th and 28th, they did not work.

" 1st March, 3 men, 1 woman and 3 children, 17 units; 44 pies, 2-6 pies a unit or 10 4 pies a man a day.

" No. 3. gang—25th and 26th February, 4 men, 3 women and 3 children, or 50 units and 115 pies, i.e., 2-3 pies or 9-2 pies a man a day.

" No. 4. gang—26th February, 2 men, 3 women, 1 child, 15 units; 56 pies or 3-75 pies or 15 pies a man a day.

" No. 5. gang—26th February, 2 men, 3 women, 14 units; 35 pies or 10 pies a man a day.

" No. 6. gang—26th February, 1 man, 2 women, 1 child, or 9 units; 30 pies or 13 pies a man.

" No. 7. gang—3 men, 3 women, 4 children, 22 units, and 70 pies or 13 pies a man a day.

" 6. From this it will be seen that at Gudipatipalli, the average earned is higher than that earned in Timmareddipalli: As. 1-6 was given for removal of prickly-pear, but the Executive Engineer ordered that it should be reduced to As. 1-3; this is as it should be. The workers have as yet attended only from two villages, Gudipatipalli and Gammallallasa, only 1½ miles, and I am informed that the opening of the work is only now being more widely known. But I am not sanguine that the work will continue. Those on the work represented to-day that the wage was hardly adequate, and already asked for a relaxation either of the test or for the introduction of a daily wage, irrespective of the test. The Executive Engineer and myself are of opinion that for the

soil in question the test is not over-strict nor unfair. The fact is that the workers are the Madigas and the Panchamas, not professional diggers, and they have only to inure themselves to the work, and if they do so patiently, I have no doubt that day after day the average wage will increase. Gang No. 2, as a matter of fact, earned an average wage of 9.84 pias a man on the 25th and 26th February and earned 10.4 pias on the 1st March. No. 4 earned as much as 15 pias and Nos. 6 and 7, 13 pias. If they accustomed themselves to the work, and if they continued, they would in my opinion improve in wage earning; but if, as they threaten to do, they strike and go away, the conclusion will be irresistible, that the indication of acute distress is slender.

"The rate now fixed and the tests laid down are fair for either side, and the blame will be on the people who refuse to avail themselves of them. The rates are net, *i.e.*, full rates minus contractor's profits, and the apparent wonder is why the people should strike under the intermediate test system, while the contractor is prepared to accept work for the gross rates. The answer is that the contractor admits only the professionals, who do in less time and earn more wages. The people do not understand and do not appreciate what it is to be left to themselves without supervision. Sympathy gets the better of desire to work by the tests and by full time, and yet the people expect an average equal wage for a man, a woman and a child. The result is that the outturn is poor, that the wage is watery, and the work offered is not popular in the idea of the workers. Perhaps it is too early to form any final opinion now and it will be advisable to wait to see the fate of the Gudipatipalli tank work.

"In the circumstances, it will be desirable to postpone the commencement of the Hajipuram tank work until distress comes to be more acute by light of apparent indications and as the result of the application of 'strict test conditions'".

It will be seen from the above that the system adopted was intermediate, that it was a system to test the situation, and that the task exacted made no difference between sex or age or previous occupation or training.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

17. It will also be seen that payment was in strict proportion to results. There was no difference in wage, no rest day allowance and no allowance to dependants. But later on in the course of the season when professionals came on the works and showed an outturn which gave them an unduly liberal wage, a maximum scale was fixed which resulted in the professional withdrawing from the work.

18. What circumstances induced the conversion of test works into regular relief works?

18. No regular relief work was opened here. The test works were kept open for months, closed and reopened, but workers did not arrive in sufficient numbers at first, or at all, later to justify the conversion of the test works into regular relief works.

Questions.

Answers.

19—51.

19—51. No large public works were opened here. I might answer a number of questions from my experience of famine duty in the Anantapur district in 1897, but I see that the present Commission require answers to questions framed with reference to the circumstances of the more recent famine, and I therefore refrain.

52—59.

52—59. Small village works were not undertaken.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

60. So far as I know, there is only one aboriginal tribe, the Yanadis, distributed throughout the district, but very largely only in the Nellore and the Gudur taluks where the acuteness of the season was not felt. Further, they are more or less a peripatetic tribe (though only within the district) and they have nothing to call a home. They move to localities of plenty.

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

61. None.

62. Were able-bodied persons engaged at any time on works of private utility at public expense (e.g., weeding fields, etc.)? And, if so, to what extent, at what stage, for how long and under what control?

62. No.

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

63. No.

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

64. There was no occasion to ask them to go on them.

65.

65.

66. What measures were taken to prevent mortality of cattle and with what success?

66. Reserves were thrown open where they grazed free. But there was some delay in the concession being granted, though I moved rather early in the season. Still, it was a concession and saved a number of cattle which might otherwise have died.

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

67. No.

68—81.

68—81. No gratuitous relief was offered.

82—85.

82—85. No suspensions and remissions of land revenue or rent.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. I did not observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given. But there were applications for the one or the other, applications stimulated by those who had no interests at stake. The fact is that when high prices brought the ryots enough and more to help them to pay the dues in time, it would have been rather bad policy to grant their prayer, and thus only embarrass their situation by plugging two kists which it would be very

Questions.

Answers.

difficult to pay if prices fell. This difficulty was actually felt in Udayagiri in 1899. There was no case for granting and it was resolved not to grant dry remissions.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. None.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. Actual relief did not commence here and, as I said above, the commencement of the Tinnareddipalli work was commenced rather liberally. This affords a lesson for guidance. The scale and task and rate have to be determined before any intermediate test work (if this be still intended to be the gauge of distress) is commenced.

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. The people in receipt of relief at the intermediate work were mostly landless labourers and very rarely State ryots and occupancy tenants.

90. In your experience were people more ready to come on relief than in former famines; and, if so, to what is this readiness attributable?

90. There is a tendency to come more readily now, but when they do come on the test work, they as readily withdraw. This is due more to the proprietors of land relaxing their responsibilities and the duties they owe to their men. The latter are astricted to the land and in season and out of season, they are their masters' men. But with the sight of distress, it has become the tendency of the proprietors to throw his men on the works and they consider that the State is bound to relieve them.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. I noticed some reluctance in some quarters where the people thought that when State relief was available they might as well accept it. There are periods of the year when there is no work and there is no cultivation when the ryot depends on previous accumulations. Rather than exhaust them, he accepts State relief. But such cases are not usually many; while, on the other hand, a ryot who discussed with me, said he was prepared to go on the works.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. I consider that the tests of the Code are sufficient.

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

93. I would fix a maximum for the able-bodied professional and a minimum wage and a safe task for the really needy.

94. What system of registration of births and deaths is followed?

94. The registration is made in the villages by the village munsif or the karnam as the birth or the death occurs. The work is controlled by inspecting officers, by the Tahsildar, by the Deputy Inspector of Vaccination, by the Revenue Inspector, and by the vaccinator, and in books by the Registrar under the recent Act.

Questions.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply; and, if so, at what intervals of time?

97. What special sanitary arrangements were made—

(a) on works;

(b) at poor houses;

(c) at kitchens;

and were they sufficient? Who supervised them?

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, cast people, native institutions or missionaries?

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

Answers.

95. Local circumstances and conditions furnish the answer. In certain places, the wage is watery and the meal nominal. There is pinching and the stinting of meal. People have recourse to unripe fruit or root, to the prickly-pear fruit, and, though actual cases of deaths from starvation or underfeeding do not occur, diseases which come to be traced ultimately to causes allied to them are responsible for some deaths. Unsuitable or insufficient food have not caused instant or high mortality, but they tend to diarrhoea and such like diseases from which people die.

96. Impure water-supply is in some villages responsible for the outbreak of cholera and is a cause of increased mortality, but insufficient water-supply has not as yet tended here to produce a similar result. New wells are given where there are none, and old wells are deepened or silt-cleared where they run dry. Permanganate of potash is used to disinfect wells in cholera-affected localities once a fortnight or so.

97. No occasion for them.

98. No occasion for them.

99. Prickly-pear fruit, roots, the grain of rank grass (known as golla gundi గొల్ల గుండి), rank leaf. Such as పచ్చి ఆకు, పాచి ఆకు పిల్ల, గడ్డలు (the root of a thorny creeper growing rank on fields). Except the prickly-pear fruit which stimulates the heat of the body, the others have no bad effect on the health of the person; in some cases they have a good effect, neutralise heat.

100. No immigration.

101. *Nil*.

102. *Nil*.

103. I have not seen the report.

Questions.

104. Did you hear any complaints regarding the inability of the railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104A. What arrangements were in force to keep you informed of the traffic in food-grains by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

(a) an increase of double cropping;

(b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon—

(1) the number of people seeking relief,

(2) the death-rate,

of any changes in—

(a) the system of work (e.g., a change from Code task to payment-by-results system),

(b) the task,

(c) the scale of wages,

Answers.

104. I have not heard of any complaints, but I myself saw on platforms traffic stored up for want of rolling-stock for a number of days. I have not heard of prices of food raised by any defects in railway carriage.

104A. I have only the road here. I made special arrangements whereby to inform myself of the course of traffic, by keeping men at the cart-stand or recording as the carts passed. I admit no systematic arrangements were in force, but the toll-gate man helped me now and then. The actual importation was not very much, as only a portion of the third range was affected, but taken all in all, I cannot say that more than 20 per cent. of the actual consumption was imported. Kanigiri is also a bit of a mercantile centre and sends out and brings in. It is difficult therefore to say with any degree of accuracy that the quantity imported was actually consumed in the taluk for reasons connected with the severity of the season.

105. None.

106. No.

107. The practice of paying wages in grain still prevails here. Grain is the real wage; it indicates the real value. Labour is calculated by grain wage and grain wage alone. The tendency is very light to substitute a cash for a grain wage, and this is so where the produce is small and there is not a superfluity. But with the rise in prices, wages in cash are rising too. Wages go hand in hand with prices.

108. The provisions have not been observed here because no regular relief work were opened on which to observe them.

109. None.

110. There was no need.

111. (a) The payment by results system as a substitute for the Code task system will have the effect (1) of increasing the number of the able-bodied professionals seeking relief, for they are sure of showing better outturn and earning better wages, unless a maximum wage is fixed, in which case either the number will not increase or they will withdraw. But the professional has an elastic labour market before him and he is in request everywhere. The

Questions.

- (d) the mode of calculating fines,
 (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),
 and did these changes lead to disorganisation or wandering?

Answers.

really needy non-professional will, by this change, find himself squeezed, for the result will be no better than what I described under the Gudipatipalli work. I understand by the payment-by-results system that there will be no minimum wage, in which case (2, the death-rate may swell, as the wage will be less and the stinting more. Admissions to poor houses and kitchens are controlled by special rules, and, in my opinion, the change will create a class of labourers who, while not able to show enough outturn for earning a necessary meal, will not be a fit object nevertheless for charity or for the kitchen.

(b) The effect of any changes in the task, as circumstances call for them, will be beneficial. The task determines the distress and the task slides with necessity. The hard soils and the soft soils have their tasks for themselves, and they will not merely indicate the pulse of the locality, but the number of the people seeking relief will be steadied to actual necessity. (2) The death-rate will be normal. I take it that the tasks in this case will be determined by the nature of the soil, by the price of food-grains, and by general local conditions.

(c) *Scale of wages* sounds to me rather vague. If it is to be a sliding scale for sex, age and health, it will introduce a confusion and may tend to increase the number of people seeking relief. It will embarrass management. It may involve a difficult classification of labourers and may increase or decrease the death-rate.

(d) Any changes in the mode of calculating fines from those already existing will only tend to decrease the number of people seeking relief. I am not of opinion that it is possible to still further liberalise the rules regarding fines, but as they are, they act rather hard on the people, and I have known cases of fines in the Anantapur district driving people to despair. If the changes are to be in the way of still further rendering them strict, I am sure the numbers on the works will contract and the death-rate will go up.

(e) Changes in the tests of necessity tend in my opinion to mixed results.

The insistence on a distance test will tend to decrease the number of people seeking relief. They can only work a limited number of hours and get a limited scale of wages, and its effect on the death-rate is apparent.

Compulsory residence will have a rather decreasing effect to start with, but as distress becomes acute, this will be appreciated, and the number of people seeking relief may increase. As a general rule, works are selected in proximity to the area in distress, and people go home every night, but if the localities of work are distant, my experience that the preliminary effects will be overcome by necessity, and rather than subject themselves to distance test, people will go on the works and submit to the rules, insisting on compulsory residence.

The drafting to distant works cannot be popular; will tend to decrease the number seeking relief and may increase the death-rate.

Questions.

112. Has your experience shown that the massing of people on large works tends to disorganize family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organization of relief works whereby these evils may be removed or mitigated?

Answers.

112. I am not aware that the massing of the people on large works tends to disorganize family life. I have not heard of any instances in Anantapur where I have been in supervision of several large works. Relief is a period of distress and no period for charms or indulgences. As a general rule, so far as the people are concerned, there is no occasion for moral ties relaxing or social bonds weakening. Rare individual instances may be whispered, but it is not possible to devise any workable ethical code for adoption without heavy extra cost or withdrawing from funds intended for real relief.

(Signed) T. RENGAROW,
KANIGIRI, Tahsildar.
5th February 1901.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY
R. MORRIS, Esq., I.C.S., COLLECTOR OF KISTNA.

INTRODUCTORY.

Questions.

Answers.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. Fair.

Fair considering the district as a whole.

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. No.

Eighty per cent.

On the average of the past four years.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) 33.08 inches, the average of 30 years ending with 1899.

(b) 20.09 inches or 60.7 per cent.

(c) In October.

(d) Month—

	1899.	Average.
June ...	1.39	3.84
July ...	2.40	5.10
August ...	4.88	5.76
September ...	4.83	6.06
Total ...	13.50	20.76

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

4. Seventy-five per cent.

5. What percentage of the total population of your district depends exclusively on agriculture—

5. Fifty-nine per cent.

(a) as petty cultivators?

(a) Forty-six.

(b) as labourers?

(b) Thirteen.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. Necessity of relief was assumed from the fact of crop failure in the Narsaraopet and Vinukonda taluks and the increase of beggars.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. Crop failure and the starting of test-works in the adjoining districts of Kurnool and Nellore.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

8. Test-works were opened on the intermediate system.

Questions.

9. How were you prepared to meet famine?—
 (a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor houses.
- (c) Kitchens { (i) on works.
(ii) elsewhere.
- (d) Organisation of private charity, especially in towns.

(e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

(a) in securing the crop on the ground?

(b) as a permanent improvement?

(c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

Answers.

9. (a) Yes.

(b) No.

10. Both.

Yes.

11.

(a) One.

(b)

(c)

(d) Two.

(e)

12. The distress never threatened to be so acute as to require such a system.

13. Yes.

	Rs. li 1309. Amount.	Object.
Land Improvement Act ordinary rules
Special Well rules
Agricultural Loans Act for purposes other than relief of distress.
Recoverable in whole.		

14. Yes.

Reliable information has not been obtained on the subject.

Yes.

(a) New operations were begun too late. Actually existing wells were of great benefit to crops under them.

(b)

(c) Yes.

15. Repairs to bunds of minor irrigation works. Under the Revenue and Public Works Department.

Under the supervision of the Public Works Department.

16. Digging and earth work. The extent of the tasks on those works, which towards the close were on task work, was in accordance with the tables in B.P., No. 243 (Revenue Settlement), dated 30th May 1900. The task was exacted from gangs, not from the individuals composing the gangs separately. Such task works were not popular labourers preferring the intermediate system when payment was strictly in accordance with the work done.

Questions.

Answers.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

17. Yes.
There were maximum and minimum wages. No rest day allowance or allowance for dependants was paid.

18. What circumstances induced the conversion of test works into regular relief works?

18. Regular relief works were not opened in this district.

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened? large public works or small village works?

19. No regular relief works were opened.

20—51. * * *

20—51.

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

52. The works opened were, with one exception small village works.

53. What classes of works did they include?

53. All were repairs to the bund of tanks.

54. Were they conducted—

(a) under the supervision of the Public Works Department,

54. The one exception above included, besides repairs to the bund, the excavation of a supply channel to a tank.

(b) under the supervision of the Civil Agency,

Under Public Works supervision.

(i) by direct management,

(ii) through landholders or by means of other non-official agency?

55. * * *

55.

56. Was any attempt made to work the Codo task system? What scale of wages was adopted? Was employment given to every one who wanted it, or only to special classes?

56. The intermediate system was in operation throughout. Latterly alongside the intermediate system, a task work system was tried. On the former class payment was by results at the rates in B.P., No. 208 (Rev. Sett.), dated 14th May 1900, on the latter the wages prescribed in B.P., No. 243 (Rev. Sett.), dated 30th May 1900, were adopted. These wages varied with the price of grain. Employment was given to all who wanted it.

57. Was any system of selection of applicants for relief tried? If so, was it successful or not?

57. No system of selection was tried.

58. If large public and small village works existed close to one another, did either draw labourers from the other?

58. No.

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

59. The distress was not acute and my experience was too limited to form any definite opinion from. I should, however, say that small works are only useful for test works and that for relief works when the test stage is past, large works only should be made use of.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

60. There are no aboriginal tribes in the district in the sense of this question.

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

61. No.

62. Were able-bodied persons engaged at any time on works of private utility at public expense (e.g., weeding fields, etc.)? and, if so, to what extent, at what stage, for how long and under what control?

62. No.

Questions.

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

65. If special relief measures for artisans were taken, were they successful from the point of view of (a) relief, (b) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68. How were dependants relieved—

(a) on large public works,
(b) on small village works,
in cash or uncooked grain or with cooked food?

69—79. * * *

80. Were cheap grain shops opened; if so for what classes and how was admission to their benefit regulated? Was this form of relief successful and what did it cost?

81. * * *

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zamindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

Answers.

63. The Luthern and Baptist Missionaries gave work at their own trades to weavers and shoe-makers.

64. These artisans were not physically unfit for ordinary labour, and many of them did go on with the test works, but there was a natural preference for the work at their own crafts given by the missionaries.

65. No special relief measures were taken.

66. None. None even called for.

67. No.

68. There was no gratuitous relief in this district, other than private alms-giving to beggars.

69—69. * * *

80. None were opened.

81.

82. Suspensions Rs. 3,02,068. No remissions other than the ordinary remissions admissible under the ordinary rules for failure of wet crops.

83. Solely on crop failure.

84. After collection of revenue began.

85. There were no such suspensions or remissions in zamindari tracts. In one estate under the Court of Wards collection of a portion of the rent was postponed till the following year.

86. None.

87. Never reached 15 per cent.

Questions.

Answers.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

94. What system of registration of births and deaths is followed?

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

88. No. The relief never extended beyond the test-stage.

89. Labourers principally. There were a few cultivating ryots but their number did not exceed five per cent. of the labourers and they came only from the immediate neighbourhood of the works.

90. There has been no genuine famine in this district since 1832-1833.

91. There was throughout the year a reluctance to lend money, but this was due to a superstition attached to the Telugu year, Vikari, and was observed before there was any suggestion of distress.

92. The operations were not sufficiently extensive to provide material for an opinion.

93. See above.

94. Registration by the village accountant.

95. The mortality was nowhere markedly high.

96. It cannot be said that there was any abnormal mortality.

No wells were disinfected.

97. None. None were required.

98. No.

99. No information is available.

100. None.

101. None.

102. No orphans.

Questions.

Answers.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is there the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (*e.g.*, a change from Code task to payment-by-result system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),
- and did these changes lead to disorganisation or wandering?

103. No.

104. The Southern Mahratta Railway had barely sufficient rolling stock to carry grain from the district to the Bombay Presidency as fast as merchants desired to export it. The delay in complying with the requisitions of these merchants reduced the rate with which prices rose in sympathy with the Bombay demand.

104A. None were thought necessary.

105. No.

106. No.

106. (1) Yes. Except in delta taluks where much of the labour is imported and migratory.

(2) Not appreciably in the upland taluks which alone are regarded as at all likely to suffer from famine.

(3) Not as far as I have observed.

108. No departure.

109. (1) and (2) No.

(3) The Salt department.

110. None.

111. (1) (a) There was great reluctance to take work on task work for a fixed daily wage. Payment-by-results with no fixed task was much more popular. The two systems were tried side by side and the number who took task work was relatively small.

(b) No change in the amount of task was made.

(c) A reduction of one-third in the rate for piece-work caused all the labourers to desert the work it was tried on. By orders of the Board of Revenue the original scale was restored.

(d) No such tests were imposed.

(2) No effect on the death-rate was observed. There was no wandering observed.

Questions.

112. Has your experience shown that the massing of people on largo works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

Answers.

112. No.

(Signed) R. MORRIS,
Collector.

26th February 1901.

REPLIES TO SOME OF THE QUESTIONS DRAWN UP BY THE FAMINE
COMMISSION BY M.R.R. J. RAMIAH GARU, DEPUTY COLLECTOR,
NARSARAOPET, KISTNA DISTRICT.

Questions.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

Answers.

1. The rainfall in 1897 was 35.40 inches in Narsaraopeta and 22.15 inches in Vinukonda. This slightly exceeded the average for 25 years for these taluks which is 33.11 inches and 20.29 inches respectively, but 3.43 inches in Narsaraopet and 4.65 inches in Vinukonda fell before the commencement of the agricultural season, and was consequently of no use for cultivation. The greater portion of the remainder fell between June and September and produced good early crops—jonna, sazza and Korra. The north-east monsoon was, however, very poor, the rainfall from October to December being 2.23 inches in Narsaraopet and 1.21 inches in Vinukonda against the average of 1.4 inches and 10.7 inches respectively. This deficiency in rainfall seriously affected the outturn of the later crop, of which the chief is variga, and which are as important as the early crops in the Narsaraopet taluk though less so in Vinukonda. The rainfall from June to September in 1898 in Narsaraopet was 12.77 inches or 3.32 inches below the average.

In Vinukonda it was 16.39 inches against the average of 9.9 inches but it was not fairly distributed. More than a third of it (6.46) fell in September which was the close of the season and the rainfall at Vinukonda appears to have been in excess of that in the villages. In both the taluks, therefore, the yield though not the extent under cultivation, of the early crops, was affected. The partial failure of the late crops in 1897 followed by the partial failure of the early crops in 1898, exhausted the food stocks in the country and a grain had, therefore, to be largely imported from other districts chiefly from Kurnool and Bellary.

The variga crop in 1898 was a bumper one, the rainfall from October to December being better than in the previous year, though still below the average, but the ryots did not reap the full benefit of it owing to a great fall in prices.

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. Information is not available in this office.

Questions.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

Answers.

3. Average for 25 years—

		South- West monsoon.	North- East monsoon.
Narasaraopet	...	16.9	9.9
Vinukonda ...	...	14.0	10.7
Narasaraopet	...	11.9	0.11
Vinukonda ...	...	9.82	0.26

Percentages are—

Narasaraopet	...	71.14	1.1
Vinukonda ...	...	70.14	2.43

The rains ceased in Vinukonda taluk on the 23rd October 1899 and in Narasaraopet on the 14th October 1899.

In the Narasaraopet taluk there were a few occasional showers in June but the monsoon did not properly speaking set in till July in which month there was 2.25 inches of rain. It was followed by 4.36 inches in August and 3.47 inches in September. In Vinukonda the monsoon did not set in till after the middle of June and it brought in only 45 cents of rain in that month and 1.72 inches in July. Of the remainder 4.66 inches fell in September by which time the early crops have mostly withered.

4. Information is not available in this office.

4. What percentage of a normal harvest on a normal cultivated area did the actual *khari* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

5. (a) 75.
(b) 20.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress.

6. Proof of necessity for relief was required by compliance of the tests.

7. The observed facts which necessitated the starting of the test works are, failure of crops, increase of beggary, and wandering of people aimlessly for want of livelihood and starvation here and there.

8. Repairs to the following minor irrigation tanks were undertaken as test works:—

Narasaraopet taluk—

- (1) Yellamanda tank.
- (2) Uppalapad Pedda tank.
- (3) Narasaraopet tanks 3.
- (4) Irlapadu and Kanuparru tanks.
- (5) Kopparam South tank.
- (6) Santamagalur tank.
- (7) Kakaki tank.

Vinukonda taluk—

- (1) Raising and strengthening the bund of Talarlapalli tank.
- (2) Raising and strengthening the bund of Nuzendla tank.
- (3) Strengthening the bund of Nallacheruvu of Pedakancherla and excavating supply channel to it.

The works were carried out in accordance with the rules laid down for conducting test relief works. Only one work was taken down in each taluk at a time and the people were concentrated on that work.

Questions.

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

(a) Test works.

(b) Poor houses.

(c) Kitchens { (i) on works.
(ii) elsewhere.

(d) Organisation of private charity, especially in towns.

(e) opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

(a) to arrange for village relief?

(b) to stimulate the local employment of labour?

(c) to organise local charity?

(d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

(a) in securing the crop on the ground?

(b) as a permanent improvement?

(c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

Answers.

9. (a) Lists of relief works were ready. Estimates were made for some works only.

(b) No.

10. Large public works only. No programme of village works was ready.

11. Test works only were started in this division. Christian mission and private gentlemen organised charitable institutions in principal places.

12. Revenue officers of all grades were constantly moving about to observe the condition of the crops and of the people. This was all that was done.

13. The following State loans were granted:—

Taluk.	Agriculturists' Loans Act for purchase of fodder and cattle.			Land Improvement Loans Act for repair and construction of wells.		
	Rs.	A.	P.	Rs.	A.	P.
Narasaraopet ..	887	8	0	1,162	8	0
Vinnukonda ..	1,870	0	0	1,050	0	0
Total ..	2,757	8	0	2,212	8	0

The loans were all recoverable in instalments in accordance with the rules on the subject.

14. Yes. Irrigation wells can be made. Digging of wells was encouraged for a small extent by loans, and, the operations were on a limited scale.

15. Repairs to minor irrigation tanks were undertaken. They are Government works, and they were conducted by the Public Works Department officers under the Collector's supervision. For list of works, please *vide* reply to question 8 *supra*.

16. Information is not available in this office.

Questions.

Answers.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

17. Payment was in strict proportion to results. The other information is not available in this office.

18. What circumstances induced the conversion of test works into regular relief works?

18. Regular works were never started.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. No revenue was remitted. Collection of revenue to the extent of Rs. 1,81,160 in Narasaraopet and Rs. 1,04,804 in Vinukonda was suspended for one year.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

83. The suspensions were based solely on consideration of failure of crops and not on considerations of the capacity or otherwise of individual ryots to pay the rent. It is always extremely difficult to ascertain whether a particular individual is able to pay the assessment or not and concessions, based on individual merits are liable to be greatly abused in a matter like this.

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

84. Suspension was determined upon after the collection of revenue had begun.

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

85. *Nil.*

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. The concession has afforded relief on the whole.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. The numbers on the work never exceeded 15 per cent. of the population.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. *Nil.*

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. The persons on relief works mostly belonged to labouring classes. There were a few cultivating ryots but their number did not exceed 5 per cent. They came from the immediate neighbourhood of the works.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. I cannot express an opinion on this point.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. No.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. The operations in this division have not been sufficiently extensive to enable me to answer this question.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No.

Questions.

Answers.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
(b) the substitution of feed crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

106. No.

107. The practice of paying wages in grain still exists here. The tendency to substitute cash for grain wage is not marked.

(Signed) J. RAMIAH,
Deputy Collector.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY
REV. F. KURTZ, VINUKONDA.

Questions.

Answers.

PRELIMINARY ACTION.

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
(b) Poor houses.
(c) Kitchens { (i) on works.
(ii) elsewhere.
(d) Organisation of private charity, especially in towns.
(e) Opening the Government forests.

11.

(d) In Vinukonda private charity occupied a large place.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
(b) to stimulate the local employment of labour?
(c) to organise local charity?
(d) to observe the general condition of the people?

12.

(c) A committee of leading gentlemen, so that local charity was given on different days.

SPECIAL RELIEF.

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

63. No.

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

64. Yes. Not generally unfit.

66. What measures were taken to prevent mortality of cattle and with what success?

66. No.

GRATUITOUS RELIEF.

69. Statistics have been called for, but which of the recognized forms of gratuitous relief was most employed in your district, and on what grounds was it chosen?

69. Money and grain doles. The last because the people got more grain than if bought from merchants.

Questions.

Answers.

70. Did the distribution of village relief in your district go beyond the classes mentioned in paragraph 141 of the report of the Famine Commission of 1880? If so, were the recipients of gratuitous relief selected by persons with local knowledge or were they admitted to relief because they complied with some test such as eating cooked food? Please enumerate the tests, if any, by which admission to gratuitous relief was restricted.

70. Selected by persons of local knowledge.

75. What ration was provided and how often were meals distributed, and at fixed or varying times? Were people compelled to feed on the premises or were they allowed to take food away?

75 Quarter measure grain given in mission kitchen thrice weekly to each individual. At one time 500 persons were fed; they were allowed to take food away.

77. Was admission to kitchens free or restricted; and if restricted, what was the method of selection for admission?

77 Restricted. Only those considered unable to work were admitted.

74A. What was the poor house ration and of what grain; was it varied on occasion to meet the case of sickness or weakness?

74A. Quarter measure corn, ragi, cholam or kambu.
No.

79. What persons were in charge of kitchens; what supervision and check was exercised over them?

79. Mission catechists. My personal supervision.

80. Were cheap grain shops opened; if so for what classes and how was admission to their benefit regulated? Was this form of relief successful and what did it cost?

80. Yes. For all classes. American corn, kambu and cholam and ragi sold to all comers in quantities not exceeding Re. 1. It was successful and cost from 4 to 6 per cent. on cost of grain.

81. Did cheap grain shops in any way discourage the importation of grain; or did they affect general prices?

81. No. Reduced bazaar price of American corn.

GENERAL.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. Death-rate among Christians and out-castes increasing, largely due to unsuitable food.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. Very largely with tamarind leaves and leaves of various plants in jungle. Yes, an epidemic of fever prevailed after rains set in causing many deaths.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. Twenty orphans were taken by the mission.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

106. Yes.

(a) an increase of double cropping;
(b) the substitution of food crops for more valuable crops or *vice versa*?

(a) Yes.
(b) Substitution of food crops for indigo.

Questions.

Answers.

107. Does the practice of paying wages in grain still prevail in your district? Is there the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. Yes.
No.
No.

111. Please trace with great care the effect upon—

(1) the number of people seeking relief,
(2) the death-rate,
of any changes in—
(a) the system of work (e.g., a change from Code task to payment-by-results system),
(b) the task,
(c) the scale of wages,
(d) the mode of calculating fines,
(e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),
and did these changes lead to disorganization or wandering?

111.

(2) Death-rate increased among out-castes and Christians. On books of American Baptist Mission there were 3,899 names of adults, of these 125 died during 1900.

3rd March 1901.

(Signed) F. KURTZ.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY REV. E. H. MUELLER, AMERICAN LUTHERAN EVANGELICAL MISSION,
NARASARAOPET, KISTNA DISTRICT.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. Fair.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. Proof of necessity was required by compliance with tests as well as partly failure of crop.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. Failure of crop. The flocking in of people in search for work.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

8. Provided people with work.

9. How were you prepared to meet famine?—(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

9. (a) The work we provided was weaving and shoe-making.
(b) No.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

10. Small village works, programme not ready.

Questions.

Answers.

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor houses.
- (c) Kitchens. { (i) on works.
(ii) elsewhere.
- (d) Organisation of private charity, especially in towns.
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under District or Local Boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test works into regular relief works?

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened? large public works or small village works?

20. Under whose control were these works? Had the scale of supervising establishment been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? Were tools and plant available?

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? and, if so, what steps were taken to relieve the pressure?

11.

- (1) *Test work.*
 - (2) Houses for people *unable to work.*
 - (3) Kitchens (elsewhere).
- All these were organisations of private charity. Finally Government opened test works.

12.

- (c) Famine Commission for local charity.
- (d) Personal supervision.

13. No. Later on for digging of wells in parts where the wells had gone dry; on promissory notes. The amount was recoverable in whole.

14. Could be made.

Yes.

- (a) No.
- (b) As wells for people and cattle, yes.
- (c) As a second reason.

15. Home-industry under supervision of the missionary. Afterwards earthwork.

16. The same as Government exacted on Government test works respective of sex and age.

17. A maximum, but no minimum; rest (Sunday) day allowance.

18. The ever increasing number.

19. Small village works.

20. Public Works Department.

Partly.

21. About twenty men a gang.

Questions.

Answers.

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for hutting or sheltering the people; for conservancy or sanitation; for water-supply; food-supply; and for medical conveniences and supervision?

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (*e.g.*, by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Codo task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the Banias on the works? Please give reasons for your opinion.

22. Nothing.

23. Open to all.

Neither.

24. Some came from about 80 miles

28. About twenty men.

30. About 3/4 of the wages men are sufficient for women, if paid daily cooly.

31. Payment according to the work turned out.

32. If started before the people are too weak to work, the result payment system will work splendidly but work must then be opened, before actually famine is declared.

33. Full task demanded from all.

34. Inadequate. They hardly could live on their wages, certainly not save upon their earnings.

Questions.

Answers.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

35. Rest day wage was not, but should be given.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

36. Certainly not. To a medium.

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

38. Twice a week. Daily payments seem desirable.

39. When people first came on a relief-work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bania?

39. First daily. Banians don't loan money to people on famine works.

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

40. To the head of the gang. Better to the individual!!

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task-work with a minimum wage of piece-work of favourable rates and which in your experience is preferable?

43. No arrangements were made for them.

44. Were Contractors employed at any stage of the famine?

44. No.

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

46. Variation in prices were totally neglected.

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

52. In this part of India the only relief.

54. Were they conducted—

54.

(a) under the supervision of the Public Works Department,

Public Works Department.

(b) under the supervision of the Civil Agency,

(i) by direct management,

(ii) through landholders or by means of other non-official agency?

Partly by means of non-official agency.

55. If conducted under (b) (ii) of the last question, what arrangements were made—

(a) for laying down the work,

(b) for measuring it up,

(c) for paying wages?

55. The work was laid down in a contract. The measuring was finally done by officials. The paying of wages was in the hands of the contractor.

Questions.

Answers.

How far wore the landholders and others responsible administratively and financially; and under whose supervision was the work done.

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

59. Small village relief works seem more desirable, as people can live *cheaper* at home, don't need to leave their house unprotected; and family life is not broken up: the moral condition is a better one.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

60. No.

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

61. No.

62. Were able-bodied persons engaged at any time on works of private utility at public expense (*e.g.*, weeding fields, etc.)? and if so, to what extent, at what stage, for how long and under what control?

62. No.

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

63. Not by Government in these taluks (Guntur, Narasaraopet, Palnad, Vinukonda, Kanigiri, Sattenapalli).

64. Did they show a reluctance to go on ordinary relief-works; or were they physically unfit for ordinary labour?

64. *Many* of them are physically unfit for ordinary labour.

65. If special relief measures for artisans were taken, were they successful from the point of view of (a) relief, (b) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

65. From my own experience they are successful from both points of view and *much* more could have been done in this respect!

66. What measures were taken to prevent mortality of cattle and with what success?

66. Nothing.

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

67. No.

GRATUITOUS RELIEF.

68. How were dependants relieved—

- (a) on large public works,
- (b) on small village works,

in cash or uncooked grain or with cooked food?

68. No gratuitous relief was given by Government.

69. Statistics have been called for, but which of the recognized forms of gratuitous relief was most employed in your district, and on what grounds was it chosen?

69. Private poor houses and kitchens.

70. Did the distribution of village relief in your district go beyond the classes mentioned in paragraph 141 of the report of the Famine Commission of 1880? If so, were the recipients of gratuitous relief selected by persons with local knowledge or were they admitted to relief because they complied with some test such as eating cooked food? Please enumerate the tests, if any, by which admission to gratuitous relief was restricted.

70. Our mission gave gratuitous relief to the aged, sick, pregnant and infant.

Questions.

71. How many poor houses were open in your district, and when were they opened? What classes of people most frequented them, and were the numbers ever large?

72. Were poor houses used as depots for vagrants and immigrants, and were persons who refused to work on relief-works sent to poor houses as a punishment?

73. Were measures taken periodically to weed out the poor houses and send people to their homes or to relief-works?

74A. What was the poor house ration and of what grain; was it varied on occasion to meet the case of sickness or weakness?

75. What ration was provided and how often were meals distributed, and at fixed or varying times? Were people compelled to feed on the premises or were they allowed to take food away?

75A. Who drew up the village gratuitous relief lists, by whom were they checked, how often, and by whom were the recipients inspected?

76. Was any limit of distance from relief-works fixed, within which civil kitchens could not be opened, or were civil kitchens opened close to relief-works?

76A. How was payment made: (a) in cash or grain; (b) daily, weekly, monthly or for any other period; (c) at the homes of the recipients or elsewhere?

77. Was admission to kitchens free or restricted; and, if restricted, what was the method of selection for admission?

Answers.

71. None.

72. No.

73. In our mission; yes.

74A. According to Famine Code, varied to meet the case of sickness.

75. People had to eat on the premises: twice a day at fixed times.

75A. By the missionary.

76. No.

76A. All the above remarks do not refer to any Government kitchen or poor houses as some were opened but to private ones only.

77. See No. 70.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. The tax for the last two years has to be paid *now*.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. Suspension did *not* give sufficient relief. Remission would be necessary.

GENERAL.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. Defective: for people wanted work, but did not find any.

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants and other tenants with security of tenure, and, if so, to what extent?

89. Panchamas.

Questions.

Answers.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. No.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. Certainly.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96. *Should* have been done, but was not.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. *Lived* to a large extent on wild products but without any appreciable effect upon their health, except general weakness.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

100. No.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. Our mission erected an orphanage.

104. Did you hear any complaints regarding the inability of the railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. Scarcity of water!

105. Did you hear any complaints from employers of private labour—agricultural or other—that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No, there was no work!

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. Not generally, but shoe-makers and weavers are still paid in grain.

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (e.g., a change from Code task to payment-by-results system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),
- and did these changes lead to disorganisation or wandering?

111. Where the people had to go a great distance to find work, disorganisation and wandering were the consequences. In Vinukonda taluk many poor people have not yet returned to their villages.

Questions.

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief-works whereby these evils may be removed or mitigated?

Answers.

112. Yes. Small villages works, home-industry.

(Signed) E. H. MUELLER,
American Evangelical Lutheran Mission,
Narasarajpet.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY E. A. ELWIN, Esq., I.C.S., COLLECTOR OF ANANTAPUR.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. The early rains of April and May 1899 were in considerable excess of the average in all except the southern parts of the district and cultivation began early. Then came an undesirable pause and the protracted break in the months of June and July retarded the early sowings and affected the standing crops. In fasli 1307 (1897-98) the outturn of wet crops was from 8 to 12 annas generally and that of dry crops from 2 to 6 annas. The low yield of dry crops was attributed to the want of timely rains in both the seasons and the poor falls during the north-east monsoon. The taluks in which dry crops suffered most are Tadpatri, Gooty, Anantapur and Dharmavaram. In fasli 1308 (1898-99) owing to scanty rainfall, the condition of crops both dry and wet was not good. The wet crops yielded generally from 8 to 12 annas except under tanks which received scanty supply. The condition of dry crops, both early and late, was bad and their outturn ranged from 4 to 8 annas. Dry remissions amounting to Rs. 22,000 were granted in parts of the Gooty and Tadpatri taluks.

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. The *kharif* or 1st crop sowings (dry) were not up to normal and amounted to 90·97 per cent. of the normal cultivated area. The wet area sown was a little more than the normal area. The normal cultivated area was arrived at by taking the average of the cultivated area of five faslis (1303 to 1308) excluding the famine year (fasli 1306).

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) The average rainfall of the district (30 years' average for the period June to December) is 19·89 inches.

(b) The actual rainfall in the rainy season of 1899 was 14·59 inches and represented 73·4 of the average.

(c). The rains may be said to have practically ceased before November, for with the exception of a little drizzling from time to time in that month, no more rain fell during the north-east monsoon.

Questions.

Answers.

(d) The rainfall from June to September was, as compared with the average, as shown below :—

			Rainfall.	Average.
			INCHES.	INCHES.
June	...	...	0.4	2.44
July	...	...	0.13	2.06
August	...	...	2.05	3.37
September	...	...	9.69	5.06

The rainfall was thus unevenly distributed. The deficiency in June and July was most marked. In August, the rainfall though deficient was yet moderate and in September it was remarkably copious.

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

4. The actual *kharif* (1st crop) harvest of 1899 represents a percentage of 33 to 60 of a normal harvest on a normal cultivated area.

5. What percentage of the total population of your district depends exclusively on agriculture—

5. The percentage of (a) petty cultivators and (b) labourers to the total population of the district is as shown below :—

- (a) as petty cultivators ?
(b) as labourers ?

(a) Petty cultivators ... 32.8
(b) Labourers ... 13.5

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. The necessity of relief was not assumed from the fact of crop failure alone. The Commissioner twice visited and toured in the district and was satisfied that at least in parts of the Tadpatri taluk considerable distress existed. Proof of necessity for relief was required by compliance with tests.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. The rise in the prices of food-grains, demand for labour and emigration of labourers from parts of the district where the output of crops was poor or bad in search of employment were the observed facts which led to the organization of a test-work.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

8. A test-work on the intermediate piece-work system was started in the neighbourhood of the affected tract under the supervision of the Public Works Department to provide employment for the destitute among the labouring classes. The tests applied to gauge the extent of the distress were—

(i) Payments in strict accordance with the amount of work turned out subject to certain maxima specified in the table of rates.

(ii) Non-payment for work done in excess of the maxima.

(iii) Non-observance of distinction between professional and non-professional workers.

(iv) Absence of separate provision for rest-day allowances and for dependants.

9. How were you prepared to meet famine?—

(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

9. Some irrigation and road works were selected in suitable localities and the sanctioned estimates were ready for the starting of works should necessity arise :—

(a) Yes, as regards sanctioned works

(b) No, the ordinary Public Works Department being sufficient to meet an emergency.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

10. The famine-relief programme included both the large public works and small village works, but the former were looked on as the backbone of the relief system. A programme of village works was also ready in reserve from the beginning.

Questions.

Answers.

11. In the sequence of relief measures, what place was taken by the following :—

- (a) Test-works?
- (b) Poor Houses?
- (c) Kitchens { (i) on works?
(ii) elsewhere?
- (d) Organisation of private charity, especially in towns?
- (e) Opening the Government forests?

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test-works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test-works into regular relief-works?

19 to 81.

11. The first concession was the throwing open of the forest reserves for the free-cutting of grass as per instructions in B.P., Mis. No. 853, Forest, dated 9th December 1899. A test-work, viz., the restoration of the ruined Pinnapalli tank in the Yadiki Deputy Tahsildar's charge of the Taipatri taluk was next started (5th March 1900) and a local committee of the Indian Famine Charitable Relief Fund was formed on the 30th March.

No poor houses or kitchens were opened.

12. (a) None.

(b) Instructions were issued to the Tahsildars and Divisional-officers to encourage ryots to obtain loans under the Land Improvement and the Agriculturists' Loans Acts so that employment might be available to the people near their homes.

(c) None.

(d) The district and local officers were constantly touring in the affected parts and observing the condition of the people.

13. Loans were issued from the beginning of the scarcity to agricultural classes under both the Loans Acts—under the Land Improvement Loans Act for well sinking and removal of muth-grass and under the Agriculturists' Loans Act for the purchase of fodder, for the maintenance of cattle and for the purchase of cattle and seed-grain. The sums disbursed under the Land Improvement Loans Act amounted to Rs. 8,350 and under the Agriculturists' Loans Act to Rs. 610. The loans were recoverable in whole in easy instalments prescribed by the rules.

14. Irrigation wells can be made in all parts of the district, but their formation is difficult and expensive in the black cotton soils of the Gooty and Taipatri taluks. The question as to what was the average depth below the surface of water on the cessation of the rains in 1899 does not admit of a definite reply, as no such record is available. The digging of wells was encouraged by the grant of State loans—

(i) as a means for securing a permanent improvement, and

(ii) as a temporary measure to employ labour.

15. Want of labour was not the only criterion of the need for relief.

An irrigation work was started as a test-work under the supervision of the Public Works Department.

16. The task-work system was not applied.

17. Payment was in proportion to results. There was a maximum wage, but neither a minimum wage nor a rest-day allowance nor an allowance to dependants was prescribed.

18. The work did not proceed beyond the test stage.

19 to 81. There were no regular relief-work nor were there small village works. There was also neither special relief nor gratuitous relief.

Questions.

Answers.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient, to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

82. Dry remissions to the amount of Rs. 57,978 were granted and the collection of Rs. 39,372 was suspended until the next kists.

83. The system of remissions and suspension^s was based on crop failure and the general incapacity of the ryot to pay. The latter was determined on the results of the personal inspection and local inquiries of the Tahsildar and the Divisional-officer in particular and of the Collector in general.

84. The necessity for suspensions and remissions was recognized before the kist season but the amounts to be suspended and remitted were determined after collection of revenue began.

85. There are no zemindari tracts in this district.

86. No such instances have come to the notice of the undersigned.

GENERAL.

87. The maximum number of persons recorded on the test-work did not exceed 2.04 per cent. of the population affected.

88. As the work did not proceed beyond the stage of test, it was neither excessive nor defective.

89. Those relieved consisted mostly of Malas and Madigas and some Boyas, Kapus, Native Christians and a few Muhammadans. Agriculturists formed a very small proportion.

90. No.

91. The distress was purely local and temporary and touched the mass of ryots but little.

Many of these had their usual stores. It is only the daily labourers who were somewhat affected when agricultural operations came to a standstill.

92. The tests of the Code apply to the task-work system and the test-work started in this district was not worked under that system.

93. The undersigned has at present no proposals to make.

Questions.

Answers.

94. What system of registration of births and deaths is followed?

94. In the Anantapur Municipality, births and deaths are recorded by the municipal agency. In villages the statistics are recorded by the heads of villages. Under G.O., No. 289, Revenue, dated 26th March 1900, compulsory registration of births and deaths under Act III of 1899 has been introduced in the villages attached to the major unions, heads of villages being appointed as registrars.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. The vital statistics do not show a high mortality.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96. No deaths attributable to an impure or insufficient water-supply have come to notice. The well near the test-work was once disinfected with permanganate of potash.

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

97. (a) The Hospital Assistant at Tadpatri used to go once a week to the workshop and examine the condition of the workers.

(b) and (c). *Nil*.

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

98. No grain shops were opened on the work.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. No cases where the people supplemented their food with wild products have come to notice.

100. Did you observe much immigration from Native States? Roughly, what proportion did such immigrants bear to the total number relieved?

100. There was no immigration from Native States.

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

101. *Nil*.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. *Nil*.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. The undersigned has no suggestions to make.

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. No such complaints have come to notice.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. Information regarding the export of food-grains by rail was being obtained from the stationmasters and there was no reason to consider that the statistics were not reliable. No arrangements were in force in regard to the

Questions.

Answers.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (e.g. a change from Code task to payment-by-results system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganization or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organization of relief works whereby these evils may be removed or mitigated?

traffic in food-grains by road. There was no traffic by river in this district. No information is available as to what proportion of the assumed consumption of the people was imported.

105. No such complaints have come to notice.

106. There has been no noticeable change in the character of the crops sown of late years.

107. The practice of paying wages in grain still prevails in this district chiefly at the time of harvest. The tendency is not so much as to substitute a cash for a grain wage. Wages have risen though not in proportion to the rise in prices.

108. There was no occasion to depart from any of the provisions of the Famine Code as the test-work was managed under the intermediate system.

109. None.

110. None.

111. (a) A fair number of labourers came forward for relief at the outset but many of these struck work and returned to their villages in hopes of compelling the authorities to introduce the task system under which they had worked during the famine of 1897 and which they supposed would give them more favourable rates. The pressure of the distress, however, shortly afterwards, compelled the poorest of the deserters to return to the work, and thereafter the attendance gradually increased, but the work as stated above never proceeded beyond the stage of test, the degree of distress evidenced by the numbers on relief not calling for the declaration of "famine."

112. The undersigned has no remarks to offer.

25th February 1901.

(Signed) E. A. ELWIN,
Collector.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY M.R.RY. T. A. SHUNMUGASUNDARAM PILLAI AVERGAL,
DEPUTY COLLECTOR, ANANTAPUR.

INTRODUCTION.

Questions.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

Answers.

1. The early rains of April and May 1899 were in excess over the average and the cultivation progressed satisfactorily. In June and July, the rainfall was scanty and the cultivation was thereby retarded. In August the rainfall was moderate and in September remarkably copious, with the aid of which a normal was brought under cultivation.

Gooty Taluk.—In fasli 1308 only 14 per cent. of the cultivated area yielded a normal crop and the outturn on 32 per cent. was less than 4 annas. Fasli 1307 was a little favourable, since 30 per cent. of the area cultivated yielded a normal crop while the outturn on 19 per cent. was less than 4 annas.

Tadpatri Taluk.—In fasli 1307, 16 per cent. yielded a normal crop and 27 per cent. less than 4 annas. In fasli 1308, 14 per cent. of the total area gave a normal crop, while 26 per cent. yielded 4 annas and less and 33 per cent. was a total failure.

* * * * *

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) The average rainfall for the Gooty division during the rainy season is 20.30 inches.

(b) The rainfall during the rainy season of 1899 was only 12.98 inches. This represents 63.9 of the thirty years average rainfall.

(c) November 1899.

(d) The distribution of rainfall from June to September 1899 at the rain recording stations as compared with thirty years' average is shown hereunder:—

Name of station.	June.		July.		August.		September.	
	1899.	Average.	1899.	Average.	1899.	Average.	1899.	Average.
Urayakonda	0.25	2.15	..	1.96	4.07	3.27	10.04	5.33
Gooty	1.05	2.72	0.14	2.90	5.41	4.22	7.93	5.25
Yadiki	0.23	2.54	..	2.64	2.63	4.10	3.83	4.33
Tadpatri	0.19	2.35	0.20	2.72	2.34	4.47	8.01	5.05

4. What percentage of a normal harvest on a normal cultivated area did the actual *khari* harvest of 1899 represent?

4. The percentage ranged from 33 to 60 per cent. of the normal harvest on normal cultivated area.

* * * * *

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. The necessity of relief was not assumed from the fact of crop failure alone. A test-work was opened to gauge the extent of the distress.

Questions.

Answers.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. The failure of crops in the current season (1309) and that closely following the adverse season of the previous two years crippled the resources of the agricultural classes. The cooly classes that depended upon the agricultural classes lost their support and hence the necessity for opening test-work. A test-work at Pinnepalli in the most affected part of the Tadpatri taluk was opened.

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

9. (a) Yes. (b) No.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

10. Large public works. A programme of village works was also ready.

11. In the sequence of relief measures, what place was taken by the following—

11. Forests were thrown open for free cutting of grass. A test-work was started. A local committee of Indian Famine Charitable Relief Fund was formed.

(a) Test works.

(b) Poor houses.

(c) Kitchens { (i) on works.
(ii) elsewhere.

(d) Organisation of private charity, especially in towns.

(e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

12. (a) None.

(b) People were encouraged to take loans.

(c) None.

(a) to arrange for village relief?

(b) to stimulate the local employment of labour?

(d) I was constantly touring the affected parts and observing the condition of people.

(c) to organise local charity?

(d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

13. Loans were granted under Land Improvement Loans Act to an extent of Rs. 1,295 in the Tadpatri taluk to the agricultural class of people. They are to be recovered in instalments.

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

15. Tank work at Pinnepalli; under the supervision of Public Works Department.

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

16. No tasks. The work was conducted under the intermediate system.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

17. Yes. There was a maximum wage, but no minimum, no rest day allowance, nor was allowance to dependants recognised.

18. What circumstances induced the conversion of test works into regular relief works?

18. The work did not proceed beyond the test stage.

LARGE PUBLIC WORKS.

19 to 81.

19 to 81. There were no large public works nor small village works nor was there any special or gratuitous relief.

Questions.

Answers :

. SUSPENSIONS AND REMISSIONS OF LAND
REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. (a) The collection of Rs. 20,281 relating to 33 villages in the Tadpatri taluk was suspended and (b) dry remission to the extent of Rs. 41,589 in 57 villages was granted in the Tadpatri taluk and Rs. 16,389 for 28 villages in the Gooty taluk.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

83. They were based upon crop failure in this and the preceding years and the capacity of the ryots was also taken into consideration in granting the remission. Ryots holding wet and garden-lands were not granted any remissions.

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

84. Suspension orders were issued before collection of revenue began and remitted after it. In the Tadpatri taluk suspension orders were issued even after the kist months.

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. No.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. No.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. No.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. Neither excessive nor defective.

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. Panchamas, Kapas, Balijas, Bojas, Musalmans, Dudekulas, Bestas and weavers.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. Yes, continuous bad years and dearness of provision owing to failure of crops.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. No.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. Yes.

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

93. No.

94. What system of registration of births and deaths is followed?

94. Village reddies have been entrusted with this work and they submit monthly reports to the Collector.

Questions.

Answers.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. No high mortality.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96. The well near the tank work was disinfected once with permanganate of potash.

97. What special sanitary arrangements were made—

97. (a) The Hospital Assistant at Tadpatri was inspecting the work once a week.

(a) on works;

Yes, D.P.W.

(b) at poor-houses;

(c) at kitchens;

and were they sufficient? Who supervised them?

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

98. No grain shops on the work.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. I have nothing to suggest.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. Station Masters were asked to submit weekly reports. Reliable. There were no imports. A large quantity of cholam, sajja and ragi were exported to Sholapur, Dharwar and Bombay.

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. Yes; yes; not much; yes.

111. Please trace with great care the effect upon—

(1) the number of people seeking relief,
(2) the death-rate,
of any changes in—

(a) the system of work (e.g., a change from Code task to payment-by-results system),

(b) the task,

(c) the scale of wages,

(d) the mode of calculating fines,

(e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

111. The labourers on being informed that they would be paid strictly in proportion to the work turned out, struck work with the intention of inducing the authorities to revert to the task work system which was in force in the famine of 1897 and which they considered profitable. They however afterwards returned to the work seeing that the officers did not yield.

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

112. The work opened was only a test work and no large work was opened in the division.

26th February 1901.

(Signed) T. SHUNMUGASUNDARAM PILLAI,
Deputy Collector.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY
R. C. C. CARR, Esq., I.C.S., COLLECTOR OF BELLARY.

INTRODUCTORY.

Questions.

1. (a) What was the outlook in your district when the rains of 1899 commenced? (b) What had been the character of the harvests in the two preceding years?

2. Were the *khari* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

4. What percentage of a normal harvest on a normal cultivated area did the actual *khari* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

Answers.

1. (a) The outlook was generally fair when the rains of 1899 commenced, but the south-west monsoon was deficient and the north-east monsoon proved a failure.

(b) Fair, *i.e.*, there had been a crop of from 8 to 11 annas

2. No. Eighty-seven per cent. of the normal area was sown.

The average cultivation for the previous five years has been taken as the normal cultivated area.

	For the whole district.	Affected tract only.
3. (a)	19.78 inches.	19.83
(b)	14.77 or 75 per cent. of the average.	12.90 or 65 per cent. of the average.
(c)	October.	October.

(d)—	Average	Actual.	Average	Actual.
June	2.62	0.98	2.75	0.66
July	2.59	0.89	3.14	1.41
August	3.48	2.34	4.15	3.19
September	5.20	9.52	4.91	6.99

There was practically no rain in June. The rainfall in July and August was deficient, and badly distributed. The heavy rain in September averted a disaster.

4. 50 per cent.

5. Petty cultivators	...	...	42.3
Labourers	...	...	11.5

6. The necessity of relief was not assumed merely from the failure of crops. Test-works were opened to see whether the people were in need of employment, and to gauge the measure of distress.

7. The crops had failed, and the prices of food-grains having risen considerably, there was no local demand for labour.

8. Road and irrigation works were started as test-works.

The rates of wages allowed were not unduly attractive, and were just sufficient to enable the workers to keep good health on their earnings.

9. (a) Yes.

(b) Not in my office. The Executive Engineer was ready with scales of establishment, and had a list of candidates.

Questions.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor houses.
- (c) Kitchens. { (i) on works.
(ii) elsewhere.
- (d) Organisation of private charity, especially in towns.
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

Answers.

10. Large works. But a programme of village works was also ready.

11. Test-works were the only measure of relief found necessary. The season improved, and the works were stopped.

12. Tahsildars and Divisional officers were required to submit, direct to the Collector, a special season report every week showing the state of the standing crops, the condition of people and cattle, and the extent to which the demand for labour was locally met. This order was issued early in December 1899 as soon as it was apparent from the ordinary weekly season reports that there had been a failure of crops in some parts of the district. It was not found necessary to arrange for village relief, or to organise local charity. But to provide employment for the labouring classes, minor irrigation works were ordered to be put in hand at once, and Tahsildars were specially requested to disburse loans freely, and without delay.

13. Yes. In the affected tracts, Rs. 9,950 were advanced under the Land Improvement Loans Act to agriculturists to clear their lands of *nath* grass and for the repair of wells. Loans amounting to Rs. 435 were granted under the Agriculturists' Loans Act for purchase of fodder to ryots owning cattle. It is too early to answer the last part of the question. In a few cases the money has been recovered summarily for failure to do the work.

14. In some taluks irrigation wells are largely used, but in Adoni the conditions for such wells are not favourable. No loans were granted in the affected tract for the digging of wells. A small amount (Rs. 325) was granted for repairing old wells. Information regarding depth below surface not available.

15. The first work undertaken was the construction of a Local Fund road as an ordinary work under the supervision of the Union Chairman.

16. The maximum task was fixed with reference to Board's Proceedings, No. 309, Revenue Settlement, dated 29th June 1900, and payment was made according to the work turned out. The gang maistry selected by the workers took work from them according to their capacity.

17. Yes. There was a maximum wage, but no minimum wage nor rest day allowance or allowance to dependants.

Questions.

18. What circumstances induced the conversion of test works into regular relief works?

LARGE PUBLIC WORKS.

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

62. Were able-bodied persons engaged at any time on works of private utility at public expense (e.g., weeding fields, &c.)? and, if so, to what extent, at what stage, for how long and under what control?

63, 64 and 65

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68 to 81

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

Answers.

19. The test works were not converted into regular relief works.

19 to 51. No large public works were opened.

52. The only village work was the road at Yemmiganur already spoken of. This was used as an original test work.

SPECIAL RELIEF.

60. No aboriginal tribes in this district.

61. No.

62. No.

63, 64 and 65. No relief measures were found necessary.

66. Loans for the purchase of fodder were granted where necessary.

67. No.

68 to 81. No measures of gratuitous relief were found necessary.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. Out of a total land revenue demand of Rs. 19,33,414, the collection of Rs. 20,293 was suspended, and dry remission amounting to Rs. 14,940 were granted.

83. The outturn in the year and in the two previous years, and in the affected tracts the outturn in the two famine years (falis 1301 and 1306), and the general condition of the people were all taken into account in recommending remissions, but they were given by tracts without reference to individual losses. Information as to the condition of the people was furnished by the Tahsildar and the Divisional-officer.

84. A month after the collections had begun.

85. No zemindari tracts in this district.

Questions.

Answers.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. No.

GENERAL.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. No. The highest number of persons on the test works was only 819 or 4 per cent. of the population of the affected tract.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. Relief was adequate

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. The persons who resorted to the works were mostly agricultural labourers.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. They were less ready. I was in the Ganjam famine of 1888-89. Distress was less severe in Yemmiganur (the affected tract of this district) and for this reason there was no rush for the Government works.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. No.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. Yes.

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

93.

94. What system of registration of births and deaths is followed?

94. Registration of births and deaths is now compulsory in municipalities and in major unions. Elsewhere village officers obtain the information and record it in their registers. Those registers are from time to time checked by officers of the Revenue and Sanitary Departments.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. There was no high mortality in the affected tract.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96.

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

97. No poor houses or kitchens were opened. Owing to the smallness of the works it was not found necessary to make any special sanitary arrangements.

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

98. No grain shops.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. No.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

100. No.

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of this district?

101.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. No.

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. There was great congestion of grain exports from this district. The railways could not carry the grain away fast enough, and the shops of traders in Bellary, Adóni, and elsewhere were piled up to the roof with grain bags. Most of it went northwards to Bombay but later on there was a steady flow westwards to the Dharwar district.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. Information about exports from the district is regularly obtained from the Agents of the Southern Mahratta and the Madras Railway Companies. There were no imports except rice.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

106. I do not think so. During 1900 there has been a great increase in the area cultivated, and sowings were earlier than usual on account of good rains in June.

(a) an increase of double cropping;

(b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. Grain wages continue to be much more common than money payments and are almost universal during harvest. There is a slight tendency to prefer money payments in towns, and in the large villages which are market towns.

Yes.

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

108. The intermediate system of relief was adopted.

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

109.

Questions.

Answers.

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

110.

111. Please trace with great care the effect upon—

111.

(1) the number of people seeking relief,
(2) the death-rate,
of any changes in—

(a) the system of work (e.g., a change from Code task to payment-by-results system),

(b) the task,

(c) the scale of wages,

(d) the mode of calculating fines,

(e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

112. No large works opened in the district.

23rd February 1901.

(Signed) R. C. C. CARR,
Acting Collector.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION,
BY M.R.Ry. V. SRIVATSANKA RAO PANTULU GARU, ACTING DEPUTY
COLLECTOR, BELLARY.

Questions.

Answers.

1 to 81.—*

SUSPENSIONS AND REMISSIONS OF LAND
REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. In the Badvel taluk of the division, collection of dry assessments to an extent of Rs. 19,000 was suspended. No remissions of dry assessment were granted anywhere in the division. As a necessary consequence of general deficient rainfall, tanks received scant supplies throughout the division and large season remissions for wet waste, shavi and tiruvakamini (difference between wet and dry assessments on wet lands cultivated with dry crops from inadequacy of water) were granted in the three taluks of Sidhout, Pullampet and Badvel, forming the division. I have no statistics with me here to enable me to give exact figures. I dare say the Board has the information before it.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

83. Remissions and suspensions were based upon crop failure solely. The general capacity of the individual to pay was not taken into account.

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

84. Suspensions and remissions were determined after collection of revenue began.

Questions.

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

Answers.

85. There are no zamindari tracts in the division.

86. I did not observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given or that such relief had been abused or had failed to reach the right persons.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION,
BY MUHAMMAD RAZA KHAN, Esq., COLLECTOR OF KURNOOL.

Questions drawn up by the Commission.

Answers.

INTRODUCTION.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

1. The outlook was satisfactory. The rainfall in April and May 1899 amounted to 2.95 inches against 1.85 inches, the average expected and the price of *javari* (cholum) in the first week of June 1899 when the rains of the sowing season commenced was 34 seers (80 tolas) per rupee against 30 seers, the normal rate for the month.

The harvests of 1898-99 were bumper, and those of the previous year fair.

2. The sowings of the early crops were, on the whole, about 90 per cent. of the normal extent (10 lakhs acres) though they took place later than usual, that is, in August and September instead of June and July, during which the rainfall was abnormally deficient. The sowings of early crops were 25 per cent. of the normal at the end of July, but the deficiency was nearly fully made up in August and September. When the season for early or *poonasa javari* (cholum) having been past, the ryots cultivated the red soils with *korra* instead. Including the sowings of the later crops, the total cultivated area of the year was nearly the normal extent (18 lakhs acres). The normal cultivated area is the average of the previous five years for the corresponding period.

3. (a) The average of the rainy season (June—December, both inclusive) is 24.2 inches.

(b) The actual rainfall was 12.85 inches, or 54 per cent. of the average due.

(c) The rains ceased on the 1st November 1899.

(d) The distribution was as follows:—

Month.	Average.	Actual fall.
	INCHES.	INCHES.
June	3.05	.77
July	4.02	.60
August	5.02	4.30
September	5.94	6.11

4. The actual *kharif* harvest was about 30 per cent. of the normal harvest on a normal cultivated area.

5 (a) about 25 per cent.

(b) about 12 per cent.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine? —(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor-houses.
- (c) Kitchens { (i) on works.
(ii) elsewhere.
- (d) Organization of private charity, especially in towns.
- (e) Opening the Government forests.

6. Necessity of relief was anticipated partly from crop failure and partly from certain facts (mentioned in answer to question 7 below) being observed and tests were applied to see whether relief was necessary.

7. The labouring classes of the affected villages went in search of employment to tracts which had a better outturn. The average yield of the district was comparatively poor and owing to the influx of coolies from affected areas, the harvesting operations lasted for a shorter time and the wages earned were also lower than usual. Further, some of the ryots employed, for the gathering of the crops their own relatives rather than common labourers on account of the enhanced value of the grain. The demand for grain from the Bombay Presidency increased enormously. The prices rose proportionately high. The circumstances were carefully watched by me and I found that in March 1900 the ordinary sources of employment became exhausted. The labourers who had gone out of their villages to earn their livelihood returned home, the harvests having come to a close everywhere. The prices had generally gone up to a level higher than that of scarcity rates. Private charity had somewhat contracted.

8. The granting of Sircar loans and the execution of small works in affected villages in the shape of road repairs and the deepening of drinking-water wells under the Local Fund agency were the measures first undertaken. The test applied consisted in the payment to the coolies on the small Local Fund works of wages slightly lower than those ordinarily paid by contractors in view to see whether such works attracted labourers and whether large central test-works were needed.

9. (a) Lists of useful relief works were ready, as also estimates for many of them. Such of them as were likely to be required immediately had also been brought under sanction and an allotment for the expenditure had been obtained.

(b) No.

10. The programme contemplated large public works as the backbone of relief system and there was a programme of village works ready in reserve.

11. (a) Test works were the main item of relief. The first test-work was opened on the 9th March 1900, and the last was closed on the 12th August 1900.

(b) & (c) There were no poor-houses or Sircar kitchens in this district.

(d) In some six villages of the Markapur division, private kitchens were opened by some rich ryots and the American Baptist Mission. They were started in April and the last of them was closed in September 1900 as advised by me. In these kitchens about 800 persons were fed daily. Rs. 2,130 was collected in this

district on account of the Indian Famine Charitable Relief Fund in April 1900, and Rs. 2,000 was allotted to this district for distribution to the poor.

(c) The Sircar forests were thrown open to free grazing from April to June 1900, and the concession was largely availed of by poor cattle-owners. The harvests being poor, ryots who had not a sufficient supply of fodder were permitted (from December 1899 to June 1900) to remove grass from Sircar forests free of charge and therewith to supplement their stocks of fodder.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organize local charity?
- (d) to observe the general condition of the people?

12. (a) No village relief.

(b) Divisional-officers and Tahsildars made constant inspections of the tracts where crops had seriously failed and used their endeavours to stimulate the local employment of labour by—

(1) granting loan in suitable cases for the digging of wells and other land improvements; and

(2) having works of utility, repairs to roads and improvement of water-supply executed in the villages concerned under amani or through the agency of some trustworthy and respectable persons selected locally.

Loans were granted from January till the close of the famine operations. The small works referred to in (2) above were carried out from December 1899 to the end of February 1900 when it was found necessary to open large central test-works.

(c) No special system of inspection and control was instituted for organizing local charity.

(d) Owing to the failure of rains in October 1899, the condition of the district became critical in November, and myself and my Divisional-officers with the Tahsildars made systematic and careful inspections to observe the condition of the people and in view to start without delay such measures as might be necessary.

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

13. Loans were issued at the outset, i.e., from January 1900. In some places, the lands were well adapted for the sinking of new wells and in others wells had very deficient supplies which could be materially improved by deepening them. There was also considerable scope in parts for reclamation of land. Further, some ryots needed Sircar aid in the matter of agricultural necessaries. Loans were therefore granted to the extent of Rs. 1,98,210 under the Land Improvement Loans Act and Rs. 12,902 under the Agricultural Loans Act on the conditions as to interest (5 per cent.), instalments, security, etc., prescribed by the rules. The amounts were advanced to the agricultural classes in tracts more or less affected, and the objects of the loans were the construction of new wells, repair of old wells, removal of nut grass, construction of kutwas, purchase of cattle and fodder. The loans were all fully recoverable in instalments and no part of them was intended not to be recovered.

Questions.

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under District or Local Boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test works into regular relief works?

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened—large public works or small village works?

20. Under whose control were these works? Had the scale of supervising establishment been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? Were tools and plant available?

Answers.

14. Yes. The average depth below the surface of water was about 2 feet. It was more in some parts (Markapur and Sirvel taluks) and less in others (Pattikonda and Nandyal taluks).

The digging of wells was encouraged by loans.

(a) Yes, specially where the loans were granted for the deepening of wells with insufficient supply of water.

(b) Yes.

(c) Yes, eminently.

15. The works undertaken first were ordinary works under Local Boards and they were conducted under the supervision of the District Board Engineer and his staff as well as of the Tahsildars.

16. All the test works (with one exception) in this district were conducted on the intermediate piecework system under which no tasks were exacted [please *vide* answer to question (iii)], but payments were made according to the results and in accordance with the table of rates prescribed. The exception was one section of the Betamcherla road work (metal-breaking), which was in progress only for about a month and where the tasks mentioned in G.O., No. 215, dated 10th March 1900, were enforced. On this single work, the task taken was irrespective of previous occupation but not of sex, all healthy males being treated as class I workers and all females as class II workers.

17. Payment was in strict proportion to results. There was a maximum wage, but not a minimum wage. The table of wages payable on works carried out under the intermediate piecework system included provision for rest-day allowance and an allowance to dependants; but these allowances were not paid on the test work which was conducted on the task-work system.

18. The test works were not converted into regular relief works.

Note.—It was never found necessary to convert into regular relief works the test works which were conducted on the intermediate piecework system. The test-works that were carried on in this district were, however, large public works which were used as central test works, or its being ascertained that the ordinary works of the Local Fund department were insufficient to cope with the demand for employment, and they served not only as tests, but also as means of affording relief to persons in need of it during the season under consideration which was not one of severe distress.

Such questions (of Nos. 19 to 59) as admit of answers if they are considered to have been put with reference to the test works will be answered by me.

19. Large public works were first opened as central test-works.

20. They were under the control of the Public Works Department subject to my general supervision.

The scale had been prescribed and the establishment was ready.

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? And, if so, what steps were taken to relieve the pressure?

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for hutting or sheltering the people; for conservancy or sanitation; for water-supply; for food-supply; and for medical conveniences and supervision?

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (*e.g.*, by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not, please specify the matters in which they were independent.

26. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 426 of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable? (*e.g.*, in varying strata of hard and soft earth).

No delay at all in opening the works. Tools and plant were available.

21. The works were not divided into charges.

22. The works were not divided into charges, nor were any arrangements necessary for hutting, &c., referred to in this question.

23. Admission was free to all persons ready to submit to the labour test. As soon as test works were opened, people — including rich and well-to-do pattadars, inamdars and their females — flocked to them under the impression that they would, as was the case in 1897, be given liberal wages, irrespective of the work turned out by them. It was quite clear to me that very many of the so-called coolies were not at all *bonâ fide* relief seekers; but I apprehended that inquiries regarding their status in view to their elimination were likely to involve an undue amount of labour and time and therefore left the people alone, so that when the tests were strictly applied, the numbers might adjust themselves automatically and only the really needy might remain on the works. Distance test was insisted on in some cases. When a work was started near a large village and attracted many labourers, the work spot was removed to a distance in view that the work might not be unduly attractive and that only persons in actual need of relief might resort to it. Residence on the works was not compulsory.

24. The facts observed by me do not enable me to give an answer to the first part of this question.

The distance ranged from half to six miles.

25. The officers of the Public Works Department were subordinate to me in all matters.

26 and 27. There was no Civil officer on any work.

Questions.

Answers.

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

- (a) from the administrative point of view?
(b) from the point of view of economy?

28. The labourers were generally left to form themselves into gangs in such manner as might suit them. In exceptional cases where it was found necessary, the Public Works Department subordinates in charge of the works regulated the gangs. The size of the gangs was not uniform, but varied widely. Sometimes 4 or 5 persons formed a gang and sometimes 50 or 60. Arrangements were made to secure village gangs as far as possible, and in a few instances family gangs, under their own respective headmen and the system worked well.

29. There was no classification of labourers on the works carried out under the intermediate system. On one section of the Betameherla work which was conducted on the task-work system the classification adopted was that given in paragraph 2 of G.O., No. 514, dated 25th May 1900, except that "no special class" was recognized. The classifications compared as follows:—

According to Famine Commission's report, paragraph 445.	According to the system adopted in this district.
<i>Special Class.</i>	<i>No Special Class was recognized.</i>
<i>Class I.</i> —All able-bodied labourers who are capable of performing a fair digger's task.	All strong and healthy adult males.
<i>Class II.</i> —All adult labourers not included in the special or digger's class or in class IV and all working children over twelve years of age.	The older and the more feeble men, immature youths who have completed their 14th year, and all women.
<i>Class III.</i> —All working children below 12 and over 8 years of age who are capable of carrying a fairly sized basket of earth.	Working children who have completed their 8th year but not their 14th.
<i>Class IV.</i> —All adult dependants of workers doing nominal work or no work.	These found no place in the scheme of famine relief in this district.
<i>Class V.</i> —Non-working children.	

The wage scale adopted on the Betameherla task-work was that shown in Appendix No. I to G.O., No. 514, dated 25th May 1900, and compared with that given in paragraph 452 of the Famine Commissioner's report as follows:—

Class of workers.	According to Famine Commission. According to Government Order.	
	TOLAS.	TOLAS.
I	100	95
II	75	75
III	40	50

The task work system was in force only on one small work and for a month and therefore my experience of it is too short to enable me to give an answer to the latter part of this question or to question 30.

The wage scale in force on the works carried out on the intermediate system was that given in B.P., No. 309, dated 29th June 1900.

Questions.

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Code task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

32. Did your experience lead you to agree with the Famino Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the Banias on the works? Please give reasons for your opinion.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

Answers.

30. Please *vide* the penultimate sentence of my answer to question 29.

31. The system of payment by results (the intermediate piece-work system) was introduced in this district and was adopted throughout the period of the famine operations except on a section of one work where the task-work system as described in G.O., No. 514, dated 25th May 1900, was tried a few weeks before the closure of the operations. The task-work system and the intermediate system were in force for a few weeks on the same work, viz., Betamcherla road work, but on different sections.

32. So far as my experience of the system of payment by results (the intermediate piece-works system) goes, it seems to me that the system, if properly worked, would be suited to any stage of distress, though the distress in this district during the past season did not deepen into a severe famine, and my opinion is not therefore based on the results of an actual experiment.

33. The task exacted at Betamcherla on the task work section was that prescribed in G.O., No. 215, dated 10th March 1900. It was regulated to the class of workers and no allowance was made for distance. The task-test-work was started only at the end of June and by the middle of the next month, the season had much improved and the attendance of the workers showed great decrease. It was accordingly decided at the end of July to raise the tasks by 25 per cent. in respect of all the classes of labourers there and they, diminishing in number still further, the work was closed on the 2nd August 1900. No task was demanded on the other works which were conducted on the intermediate system and on which wages were paid in proportion to the results subject to certain maxima. (Please *vide* my answer to question 111.)

34. The wages were adequate and the condition of the workers was therefore normal. There was no evidence that the workers saved upon their earnings. There were no Banias on any of the works.

35. On *intermediate test-works* no rest day wage was separately given, but the coolies could by doing sufficient work earn, subject to a maximum, more than the wage requisite for their subsistence on the working days and thus support themselves on the rest day.

I prefer the latter method so far as intermediate works are concerned.

Questions.

Answers.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it? Did the penal wage anywhere become the wage generally earned? if it did, to what do you attribute the fact, and what were its effects?

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

39. When people first came on a relief work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bania?

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

41. Can you give, for two or three typical relief works, figures showing, at the time of greatest pressure, the number of relief workers earning—

- (a) the full wage,
- (b) the penal wage,
- (c) a wage between the full and penal wage.

Did people remain long on the works on the penal wage?

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

On the *task-test-work* no rest day allowance was given, nor could the coolies earn more than the full wage. I think the payment of rest day allowance is essential and would have made the necessary recommendation to the Board for sanctioning it under G.O., No. 514, dated 25th May 1900, but for the fact that the test work existed only for about a month and the need for the concession was not appreciably felt in so short a time.

36 and 37. Neither on the *task-test-work* nor on the intermediate test works was there a minimum wage or a penal wage. Payments were made strictly in proportion to results, no regard being paid to any minimum.

38 and 39. Payments were generally made twice a week and during the first few days after the opening of each test work, the payments were made at shorter intervals and in one or two instances daily. There were no Banias on the works and the workers felt no serious inconvenience where in the initial stages, the payments were not daily.

40. On intermediate works payment was made to the head of the gang, and on the *task-work* to the individual. I prefer the former method so far as intermediate works are concerned. I imagine the *task-work* system does not recognize headmen and where it is adopted, payment to individual coolies is indispensable unless the members of a gang or a set of coolies agree to have their earnings paid to some person selected by them.

41. There was no regular relief work, nor was there a test-work on which a penal wage minimum existed.

42. The system adopted in this district (except on the single *task-test-work*) was one of payment by results. It corresponded more nearly to the system described in paragraph 209 of the Report of the Famine Commission of 1898 than to any other of the systems referred to in the question. Its features were—

(1) Payments depended solely on the quantity of work done.

(2) Were independent of muster rolls or the exact constitution of the working party.

(3) The people generally made their own working parties according to requirements.

(4) The daily outturn of work was carefully measured by the officer in charge.

(5) Payments were generally made twice a week.

(6) Residence on the works was not compulsory.

(7) The wages payable to the workers were subject to a maximum limit which included provision for rest day allowance and an allowance for non-working dependants.

(8) The earnings were, however, distributed not by the diggor as in the Gorakpur system but by the headman of each gang who was a person enjoying the confidence of the gang and to whom with the consent of its members, the wages earned by them were paid in lump in their presence for distribution.

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task work with a minimum wage, or piece work at favourable rates, and which in your experience is preferable?

43. The maximum wages payable were those given in Board's Proceedings, No. 309, dated 29th June 1900, and they included an allowance for rest day and non-working dependants. No arrangements were found necessary for the relief of children. As regards weakly persons capable of some work, they were distributed, if not very numerous, amongst the different gangs; but where they were very numerous (there was only one instance of this kind) the inefficient were formed into a separate gang and given an easier task, *i.e.*, were paid at a higher rate for the work they turned out. I prefer this system to the system of task work with a minimum wage.

44. Were contractors employed at any stage of the famine?

44. No.

45. Under the payment by results system were muster rolls kept up, or what arrangement was there by which on emergency the Code task system could be promptly introduced?

45. No muster rolls were kept up. Neither the numbers on the intermediate test works, nor the condition of the workers, nor the proportion of the inefficient, nor the results of the system adopted here led me to a belief that resort to the Code work system was likely to be required anywhere in the district during the season. The task-work system was, however, tried on a test work at Betamcherla with classification tasking and setting out work and that work could have been converted into a regular relief work under the Code at very short notice, if necessary.

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

46. Under the orders of the Board of Revenue. The scale was based on javari in the taluks west of the Nallamalais and on ragi in the two taluks to the east of those hills. Small variations in prices were neglected.

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependants, providing tools and plant, marking out work and measuring it up, paying wages; imposing fines, conserving the water-supply, and arranging for hospital requirements.

47. The Executive Engineer was in December 1899 furnished with a copy of the famine programme and was also informed in February and March 1900 what works should have to be started as test works, when they would have to be opened, how many people were likely to attend each, etc., and he was requested to arrange for the despatch of the necessary tools and plant from the depots to the localities accordingly and to have the requisite staff ready. He was further furnished with copy of the Government Orders on my monthly famine budget estimates and was requested to place himself in funds procuring letter of credit from the Examiner for the amounts required. On the

Questions.

Answers.

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

62. Were able-bodied persons engaged at any time on works of private utility at public expense (*e.g.*, weeding fields, etc.)? and, if so, to what extent, at what stage, for how long and under what control?

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

65. If special relief measures for artisans were taken, were they successful from the point of view of (a) relief, (b) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68. How were dependants relieved—

(a) on large public works,

(b) on small village works,

in cash or uncooked grain or with cooked food?

69. Statistics have been called for, but which of the recognized forms of gratuitous relief was most employed in your district, and on what grounds was it chosen?

70. Did the distribution of village relief in your district go beyond the classes mentioned in paragraph 141 of the report of the Famine Commission of 1880? If so, were the recipients of gratuitous relief selected by persons with local knowledge or were they admitted to relief because they complied with some test such as eating cooked food? Please enumerate the tests, if any, by which admission to gratuitous relief was restricted.

(the wage ordinarily paid to a male adult by contractors and which was offered to them) but demanded eight annas for each day's light work. This indicated that they were well off and needed no relief.

61. No fuel or fodder works were opened for the special purpose of relief.

62. No.

63. No.

64. The artisans had generally sufficient work in their own crafts and no instances of the kind mentioned in this question came to my notice.

65. No special relief measures.

66. The measures taken were as follows:—

(1) Grass cutting was permitted free of charge in the Nallamalla.

(2) Reserve forests and lands were thrown open to free grazing from the 1st April 1900 to the 30th June 1900.

(3) Yopi leaves were allowed to be removed free of charge in the Betamcherla firkas of the Nandyal taluk.

(4) Loans were granted to ryots for the purchase of fodder.

(Please also see paragraph 16 of my Famine report printed in B.P., No. 503, dated 3rd November 1900).

The concessions were very largely availed of by the agricultural classes and were of immense good to cattle.

67. No.

68 to 81. No gratuitous relief of any kind was given in my district.

Questions.

Answers.

71. How many poor houses were open in your district, and when were they opened? What classes of people most frequented them; and were the numbers ever large?

72. Were poor houses used as depots for vagrants and immigrants; and were persons who refused to work on relief works sent to poor houses as a punishment?

73. Were measures taken periodically to weed out the poor houses and send people to their homes or to relief works?

74. Statistics have been called for, but how many kitchens were opened in your district, (a) before and (b) after the rains broke? What radius was a kitchen expected to serve?

75. What ration was provided and how often were meals distributed, and at fixed or varying times? Were people compelled to feed on the premises or were they allowed to take food away?

76. Was any limit of distance from relief works fixed, within which civil kitchens could not be opened? or were civil kitchens opened close to relief works?

77. Was admission to kitchens free or restricted; and if restricted, what was the method of selection for admission?

74A. What was the poor house ration and of what grain; was it varied on occasion to meet the case of sickness or weakness?

75A. Who drew up the village gratuitous relief lists, by whom were they checked; how often and by whom were the recipients inspected?

76A. How was payment made, (a) in cash or grain, (b) daily, weekly, monthly or for any other period, (c) at the homes of the recipients or elsewhere?

77A. To what persons except those mentioned in the Code was gratuitous village relief given; for how long and under what necessity?

78. What castes of cooks were employed? Was any reluctance to take cooked food shown by any classes and at any stage; and if so by what classes and at what stage?

79. What persons were in charge of kitchens; what supervision and check was exercised over them?

80. Were cheap grain shops opened; if so for what classes and how was admission to their benefit regulated? Was this form of relief successful and what did it cost?

81. Did cheap grain shops in any way discourage the importation of grain; or did they affect general prices?

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. (a) Land Revenue was suspended to the extent of Rs. 2,34,543 and (b) remitted to the extent of Rs. 1,24,580 (dry and wet remissions).

Questions.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

Answers.

83. Wet remissions (amounting to Rupees 90,312) were based solely on crop failure; suspensions and remissions of dry assessment were based not only on crop failure but also on the (1) general capacity of the individual to pay (2) the crop history for the previous two years and (3) the question whether the dry cultivation was the main or a subordinate feature of the tract. Please *vide* also paragraph 6 of my letter in B.P., No. 267, dated 8th June 1900.

The general capacity of the individuals in a tract was estimated by the Tahsildar and Divisional-officer and on their information, the matter was determined by me.

84. Orders of sircar approving my proposals regarding dry remissions and suspensions were received in July 1900, i.e., seven months after the collection season of the fasli 1309 began. Lists were, however, made in December 1899 of villages in each Taluk likely to be eligible for remission or suspension and in the case of those villages the collection of kists was suspended from the very commencement of the Kistbundy, pending orders as to what amounts were to be remitted or suspended.

85. There are no zemindaries in my district and the proprietors of whole Inam villages were not shown the concession of remission or suspension of revenue.

86. No.

87. The number did not at any time exceed over four per cent. of the population affected.

88. No.

89. The coolies were the agricultural and ordinary labourers—Malas, Madigas and Boyas. There was also a very small percentage of petty landowners and professional labourers. The numbers did not, so far as I am aware, include any of the classes mentioned in the question.

90. I have had no experience of any famine previous to the distress of 1900; but I found a great readiness in the people to attend a test work as soon as it was opened and this was due to a belief in them that they would be paid as liberal wages and required to do as light tasks as in 1897. When, however, the tests were strictly applied, only the persons really needing relief remained on the works.

Questions.

Answers.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

94. What system of registration of births and deaths is followed?

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

91. No such facts came to my notice. The people showed, in the earliest stages of the test works, a reluctance to exhaust their own resources before accepting Sircar relief, but when they understood that some reasonable work was demanded, they withdrew and only those that could not otherwise maintain themselves remained on the works.

92 and 93. The Code system was not adopted; the tests of the intermediate system as worked in my district were sufficient for the purpose. No method of selection is practicable, nor is it necessary. Please *vide* answer to question 2d.

94. In *Municipal towns* registration is compulsory. The parties concerned are required to give intimation to the Municipal office of deaths within 24 hours of their occurrence and of births within one week. Reports are also received daily from the Sanitary Inspector who, with his peons, perambulates the town as to cases of births and deaths. The vaccinator also brings such cases to notice. When any omissions on the part of the parties concerned are discovered, the parties are prosecuted.

In *rural tracts*, registration is not compulsory except in the case of some unions. The village headmen make inquiries of births and deaths and enter the cases in village account No. 19. The Karkoons (Revenue Inspectors) Tahsildars and superior officers satisfy themselves as to the completeness of the statistics during their tours.

95. Statistics do not show very high mortality in any part of the district; and even where mortality was a little higher than normal, it was not at all to any extent attributable to diseases connected with unsuitable or insufficient food.

96. Impure or insufficient water-supply was not a cause of increased mortality. No permanganate of potash was used.

97. No special sanitary arrangements.

98. No grain shops on the works.

99. No wild products were used by the people.

Questions.

Answers.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

100. and 101. No immigrants from Native States.

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. No orphans.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. I have no suggestions to make or improvements to propose. The operations of this fund wore on a very limited scale in my district.

104. Did you hear any complaints regarding the inability of the railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. No.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. I made arrangements to get on every Monday from the Tahsildars of the taluks traversed by the railway particulars of the number of bags of grain exported and imported during the week. Those officers obtained the information from the railway stationmasters. The statistics were reliable. No special arrangements were made for ascertaining the traffic by road. There was little or no traffic by the canal. Javari (cholum) is the staple food-grain of the bulk of the population of my district and no quantity of this grain was imported, the surplus of the local produce being vastly more than sufficient to meet the district requirements. Rice is eaten by a very small percentage of the population—officials and some of the well-to-do—and a trifling quantity of this grain was imported from Guntūr.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No; except at Paniem a few days ere the closure of the work there.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *vice versa*?

106. A slight change in the character of the crops sown is noticeable. In recent years food crops have to a certain extent been substituted for the more valuable crops; and even as regards the former, inferior kinds of korra which can be harvested in about three months have, owing to deficient rainfall, been substituted to some extent for Javari—a crop of longer duration.

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. The practice still prevails. No such tendency is perceptible, but the grain wages have diminished though not to the same extent to which the prices have risen. During the harvest season when there was a rush of coolies from affected tracts, the grain wages became very low.

Questions.

108. To what extent have the provisions of the Famine Codo been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
- (2) the death-rate,

of any changes in—

- (a) the system of work (e.g., a change from Codo task to payment-by-results system),
- (b) the task,
- (c) the scale of wages,
- (d) the mode of calculating fines,
- (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

Answers.

108. The relief operations were not conducted in accordance with the provisions of the Famine Code and no work was carried out under the Code system. What was adopted was the intermediate piece-work system, the features of which are different from those of the Codo system.

109. No.

110. No.

111. The main change was the adoption of the system of payment by results instead of the Code task system followed in the famine of 1897. The task prescribed by the Famine Code was too high (paragraph 8 of G.O., No. 590, Revenue, dated 11th October 1898), and the following moderate tasks were assumed to be the quantities of work that could be fairly required, if the ordinary able-bodied labourers and the coolies were permitted to do about 20 per cent. extra in the case of metal-breaking and $33\frac{1}{3}$ per cent. extra in the case of earth-work if they liked and earn enough for their own maintenance and for the support of their non-working dependants on working as well as on rest days :—

Metal-breaking (lead 25 yards).			Task.	Maximum that could be paid for under intermediate system.
Stone being easy to break.	1st class worker	..	C. FT. 6.25	7.5
	2nd class worker	..	4.16	5.0
	3rd class worker	..	2.08	2.5
Stone being hard to break.	1st class worker	..	4.50	5.25
	2nd class worker	..	3.00	3.50
	3rd class worker	..	1.50	1.75

Earth-work (one digger with appropriate number of carriers)—

			Task.	Maximum that could be paid for.
Sand	...	...	180	240
Soft earth	...	...	150	200
Medium earth	...	...	120	160
Hard earth	...	...	90	120
Gravel	...	...	60	80

The scale of wages paid on the intermediate piece-work system included a provision of 95 tolas for each working male adult and 75 tolas for each female or carrier. A typical family was assumed to consist of one working male adult, two working female adults, one non-working adult and one non-working child. If

the male adult and the two females did as much as the ordinary task, say 120 cubic feet of medium earth, they could earn $\frac{1 \frac{2}{3}}{16} \times \frac{5}{2} \times 16$ annas or $2 \frac{4}{5}$ annas when grain sold at 12 seers per rupee and the wages could fetch 288 tolas of grain which was more than sufficient for their maintenance on the working days as well as on the rest day as detailed below :—

	TOLAS.
One digger or male adult ...	95
Two carriers or female adults ...	150
	<hr/>
	245
Add one-sixth of minimum allowance or rest-day allowance ...	30
	<hr/>
Total ...	275

But if a digger and two carriers did 160 cubic feet of medium earth (*i.e.*, the maximum that could be paid for) they could earn $\frac{1 \frac{2}{3}}{16} \times \frac{5}{2} \times 16$ annas or $6 \frac{2}{5}$ annas when grain sold at 12 seers per rupee and with the total wages could purchase 384 tolas of grain which would be about sufficient for the *entire* family as detailed below :—

	TOLAS.
One digger ...	95
Two carriers ...	150
One adult dependant ...	60
One non-working child ...	30
	<hr/>
	335
Add one-sixth of minimum allowance for maintenance on rest days ...	49 (about)
	<hr/>
Total ...	384

There was no minimum or penal-wage limit and the payments were in strict proportion to the results however low the outturn. No particular scale of fines was followed on the intermediate piece-work system; if the outturn was poor, the wages were proportionately low. The only test of necessity was the distant test applied in the case of some works as stated in answer to question 23.

The tasks were not unduly high, but as some reasonable work was invariably insisted on and as there was no minimum wage paid irrespective of the work turned out, there was no inducement to people other than the really needy to remain on the works. On the other hand, those that sought relief *bonâ fide* were afforded means of earning enough for themselves and for their dependants. The system adopted during the season under consideration thus prevented the unduly large congregation of workers and kept the numbers as low as was consistent with the protection of only those that were in distress. Moreover, the fact that the system dispensed with the necessity for gratuitous relief led to the absence of kitchens and other institutions needed for such relief and to the consequent reduction in the total number of people on relief.

Questions.

Answers.

(2) The death rate was normal. The change did not at all lead to an increase in it. I may say that it averted the opposite effect which might possibly have resulted, had a system with attractive minimum wages and liberal gratuitous relief been followed. I understand that a comparatively large percentage of the district population was carried off by cholera in 1897 and that the epidemic was imported into the district from the Hyderabad territories by the numerous coolies who flocked from there to the works in the border taluks of Ramallakot and Pattikonda. On one day there were as many as 75 deaths from cholera at a single work—the Hosur relief work—in the Pattikonda taluk in 1897.

The changes led to no disorganisation or wandering.

112. Has your experience shown that the mixing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

112. No.

11th February 1901.

(Signed) MUHAMMAD RAZÁ KHÁN,
Collector.

REPLIES TO QUESTIONS DRAWN UP BY THE FAMINE COMMISSION BY
REV. C. R. MARSH, MISSIONARY, MARKAPUR, KURNOOL DISTRICT.

Questions.

Answers.

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

I am of the opinion from what I have seen of the working of the system of payment by results that it is unsuited to conditions of acute distress or actual famine; and, further, I believe that a test work conducted on this system will not, as a rule, indicate the real state of affairs or if it fail to attract people prove conclusively that there is no need of relief.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

I think a wage sufficient to enable them to support themselves on the rest day preferable to a rest day wage.

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

I think payment should be made to the individual as far as practicable.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

As indicated in my answer to question No. 32, I think the relief here last year was inadequate, for I consider the test works which were opened defective as relief works and untrustworthy as an indication or gauge of the necessity for relief.

99. How far did the people supplement their food with wild products; and had the consumption of wild products any appreciable effect upon their health?

I believe that a considerable number among the poorer of the people to a large extent supplemented the scanty amount of grain which they were able to get with wild products, but I am not aware that the consumption of such wild products had any appreciable effect on their health.

MARKAPUR,
9th February 1901. }

(Signed) C. R. MARSH.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY J. C. JOHNSTON, Esq., EXECUTIVE ENGINEER, KURNOOL DIVISION.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. Outlook in Kurnool district when the rain of 1899 commenced was normal. Early rains were expected, but they came late and in some parts were scanty.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) The average rainfall for the whole district is 27·30 inches. (b) 13·07 inches—or about 50 per cent. of the average. (c) In November 1899. (d) From June to September both inclusive rainfall was 8·73 inches or 32 per cent. of the average.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. Test works were commenced in March 1900 because of the failure of crops in several places.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. The failure of crops only. There was apparent no such distress as was visible everywhere in this district at the commencement of the 1876-79 famine when the failure of rains was complete.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

8. Test works only on the intermediate system and the wages paid were sufficient for the purchase of the workers' daily food and with very little or any over.

9. How were you prepared to meet famine?—(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

9. (a) We had a list of works ready, but it did not include many irrigation works. The bulk of the works are new roads and repairs to roads. As a rule no work but on roads is available in this district for famine relief. Estimates were prepared and kept ready. (b) The relief programme did not include scales of establishment necessary to meet any emergency and there was no list of candidates qualified for famine service kept up.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

10. The list included no large public works for there are no such available.

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

14. Irrigation wells can be made in the Markapur and Cumbum taluks and parts of Nandikotkur, Nandyal and Sirvel. I should think in the shales. In the western portion where the rocks are crystalline the depths to which wells would have to be sunk would be prohibitive. I cannot tell what the average depth of water below the ground surface was on the cessation of rains in 1899. I know that several wells both in the shales and in the crystalline rocks were almost empty. It appeared to me that there was less water available in wells than after the 1876-79 famine. This can be attributed to the frequent droughts we have had lately. Loans were, I believe, issued in the Revenue Department, but of this, I have no knowledge officially.

(a) in securing the crop on the ground?

(b) as a permanent improvement?

(c) as a temporary measure to employ labour?

Questions.

15. If labour was the first criterion of the need for relief, what works were first undertaken? Where they ordinary works under District or Local Boards? and under whose supervision were they conducted?

16. What tasks were exacted on test-works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test-works into regular relief-works?

LARGE PUBLIC WORKS.

19 to 51. * * *

20. Under whose control were these works? Had the scale of supervising establishments been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? Were tools and plant available?

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? and, if so, what steps were taken to relieve the pressure?

Answers.

15. The first work that was started was the Betameherla-Kalva road by the Revenue Department on 9th March 1900 and subsequently taken over by this Department on 15th March 1900. Other test works as per list A were put in hand under the supervision of this Department later on. Some of these works were on Local Fund roads and others on small tanks.

16. As per task tables and Collector's instructions put up (B and C enclosures) the workers were divided into three classes as follows:—

Class I.—All strong and healthy adult males irrespective of caste or occupation.

Class II.—The old and more feeble men, immature youths who had completed their fourteenth year and all women.

Class III.—All working children who had completed their eighth year but not their fourteenth.

The tasks for these classes are given in pages 8 to 19 of the Famine Task Tables.

17. Payments were in strict proportion to results with no maximum, minimum, rest-day or dependant's allowance.

18. Regular relief-works were not started. In some one or two cases when the work was first started there was a rush of people for employment, but when they realized that strict task was being insisted on, the members dwindled down to what one might expect in nearly any hot weather when there is no field work.

19 to 51. There were no large public works or regular relief-works started in 1900. Some of the questions can be applied to the small test-works started.

20. The works were under the control of the Collector, to whom the Public Works establishment engaged on the works was subordinate. No scale of supervising establishment was prescribed in advance, but Public Works subordinates were warned by the Chief Engineer to be ready for service and on notice issued by the Collector that certain works should be started. Application was made by the Executive Engineer for subordinates. Notice was so short in some cases that the Collector was obliged to utilize the services of Local Fund Overseers and Minor Irrigation Overseers for starting works.

Tools and plant were available.

21. There were two sub-divisions formed. There was no special limit prescribed as to the number of workers. The maximum number actually on the works on any one day was in Western sub-division 5,568—Nandyal or Eastern sub-division 3,374.

An overseer was in charge of each work, and the maximum number any one overseer had was 2,134, and the average about 769.

Questions.

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for hutting or sheltering the people; for conservancy or sanitation; for water-supply; for food-supply; and for medical conveniences and supervision?

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (*e.g.*, by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not please specify the matters in which they were independent.

23. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 426 of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable (*e.g.*, in varying strata of hard and soft earth)?

Answers.

22. Each charge had its own establishment. The Sub-Division officer had 2 clerks and 4 peons and each overseer 1 clerk and 1 peon. We made arrangements for water-supply which was brought to the works in barrols, but no hutting or sanitation or food-supply was arranged for, or medical conveniences to my knowledge. There were very few people on each work and they all dispersed to their villages each evening.

23. Admission to works was free to all. There were no tickets issued. No distance test was insisted on nor was residence on works made compulsory.

24. Applicants for relief in 1897 came 10 miles, but they did not return home each day, but resided in neighbouring villages. They return home as a rule if the distance is not above 5 miles.

25. In 1900 the Public Works officers were subordinate to the Collector only in all but professional matters. The Collector, of course, notified where a test work was to be started, but the Public Works subordinates fixed the tasks according to the tables issued to them and these tasks were checked by the Sub-Division officer and Executive Engineer, and corrections made, if necessary. If an alteration was necessary in a classification of soil not provided for in the tables, then the Executive Engineer would make it pending approval of the Collector. For instance the tables allow rates for gravel, presumably for hard gravel, but on one work the gravel was so soft and the tasks so easy that the numbers rose rapidly. They as quickly fell when the proper classification was given by the Executive Engineer and the approval of the Collector was obtained subsequently. In my opinion the Collector should have nothing to say to the classification. All the works were practically under the direction of the Collector, the Public Works Department was independent in nothing, for though overseers fixed the tasks, there was nothing to prevent the Collector altering them.

26. There was no Civil officer for each work. The Collector assumed direct control of all.

27. There was nothing to prevent the Collector making a change in the tasks.

Questions.

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

(a) from the administrative point of view?

(b) from the point of view of economy?

30—31.

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

33.

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What, in your experience, was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the banias on the works? Please give reasons for your opinion.

35.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it? Did the penal wage anywhere become the wage generally earned? if it did, to what do you attribute the fact, and what were its effects?

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

39.

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

41.

Answers.

28. The workers were allowed to form their own gangs as a rule, each village by itself, and this answered well. They chose their own headman. The numbers in gangs varied from 27 to 112. There was no trouble whatever occasioned by allowing workers to form their own gangs.

29. See reply to paragraph 16 *supra* as to classification and wages. The three classes were found quite sufficient for the test works.

30—31.

32. In my opinion the system of payment by results, if works are started in time and there is a sufficiency of them, is suited to a condition of actual famine, but the difficulty seems to be to start in time and to have a sufficient number of works. All large works under the Public Works Department should be worked on the result system, village relief and small works being left to the Revenue Department to work on a combination of the result and the gratuitous systems, the former with favourable rates.

33.

34. I think the scale of wages adopted was fair—see paragraph 8. In 1897 I was informed toddy sellers set up their shops near relief works, but I heard of none in 1900.

35.

36. I do not believe in the minimum wage, but on payment on results. If a person cannot earn the full wage on account of physical weakness, then he should be transferred to the Revenue works, but if he can work, that is, is physically fit, he should get nothing unless he does work. The minimum wage is calculated just to keep life in one—and many are quite satisfied with that.

37. Only payment on results in 1900. No minimum or penal wage.

38. Sometimes daily but generally twice a week. On first starting, daily payments may be necessary, but after a month or so, twice a week will be sufficient.

39.

40. To the head of the gang on the intermediate works, and to each individual on the task works. I prefer the former method, for when all of one gang belong to the same village and they chose their headman it seems such useless labour to proceed to pay individually.

41.

Questions.

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task work with a minimum wage, or piece-work at favourable rates, and which in your experience is preferable?

44. Were contractors employed at any stage of the famine?

45.

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependents, providing tools and plant, marking out work and measuring it up, paying wages, imposing fines, conserving the water supply and arranging for hospital requirements.

Answers.

42. Intermediate system as explained by the Collector in his memorandum. (Copy enclosed, Appendix D.) In paragraph 208 of the Report of the Indian Famine of 1898, it is stated that nominal rolls of all workers and dependents were necessary. None were kept here in 1900, on the intermediate works. The gangs were simply numbered and the work done by each was measured daily or at frequent intervals.

43. The maximum wage was that given in the tables circulated by the Board of Revenue. (Copies enclosed, Appendix E.)

44. No contractors were employed.

No muster rolls were kept on the intermediate system, but on the task work. What necessitated the different procedure I do not know. There seems to be no stock of roll forms for use on famine.

45.

46. The Tahsildar intimated the price of the grain, generally "Jonna," which is the staple grain of the district, to the Overseers, and these fixed the rates of wages according to a table issued by the Board of Revenue.

47. The Collector decides where to start a relief work; in some cases the Executive Engineer received notice in ample time and he was able to have tools carted and stored in the nearest village and to arrange for a subordinate. In other cases very short notice was given. There was no difficulty generally about the tools, but there was a difficulty about a subordinate, for the Superintending Engineer had to be telegraphed to, and he, it is presumed, telegraphed to the Chief Engineer, and in about 10 or 14 days' time the subordinate would arrive. With subordinate and tools and workers ready it is easy to number off the gangs and to set them to work. Labourers were classified as explained above and the numbers in each gang noted and their task for the day calculated, and the work set out on the ground. Members from one or two gangs would be set apart for bringing water, and these would be paid the wages according to the scale. The pits excavated or the stacks of metal could be marked with the number of the gang; thus each gang's work would be kept separate. With a subordinate who understood his work it was quite a simple matter to check the measurements, even for a week back. In the evening the pits would be measured and wages calculated and payments made by the subordinate, receipts being taken on hand receipt forms No. 16. The number on any individual work was so small that no special hospital arrangements were necessary. There was no fining.

Questions.

Answers.

48. Under whose orders were tasks and wages stiffened or relaxed, *i.e.*, the Collector, the Commissioner, the Famine Commissioner or the Local Government? Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority? If he acted in anticipation of sanction, was he often overruled?

48. See para 25.

49 to 51. * * *

49 to 51. * * *

SMALL VILLAGE WORKS.

52 to 59. * * *

52 to 59. There were no small village works under the Public Works Department.

SPECIAL RELIEF.

60 to 86. * * *

60 to 86. Special relief, gratuitous relief and suspensions and remissions of Revenue do not appertain to Public Works Department.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. The highest number on the works in 1900 at any one time was only 8,942, while the population is 817,811.

88 to 89. * * *

88 to 89. * * *

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. People flocked readily at first, but the numbers soon fell off when they realized they had to work. Their general complaint was that while in 1897 they were fed, in 1900 they had to work, and they objected to the change.

91. * * *

91. * * *

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. I consider the rates of wages paid in 1900 to be neither too high nor too low.

The other questions (No. 93 to end) seem to apply more to regular famine works and not to the few test works started in 1900.

(Signed) J. C. JOHNSTON,
Executive Engineer.

22nd February 1901.

APPENDIX A.

KURNOOL DIVISION.

STATEMENT showing the number of Test Works opened in the 3rd Circle with dates of opening and closure.

Number.	Divisions.	Name of work.	Date of opening.	Date of closure.
1	Kurnool	Betamcherla-Kalwa Road	9th March 1900 ..	2nd August 1900.
2	Do.	Cumbum Thokapally Road, Cumbum section ..	20th " " ..	16th July "
3	Do.	Betamcherla-Nagalacheruva	21st " " ..	25th April "
4	Do.	Komerole-Damerla Tank	26th " " ..	29th May "
5	Do.	Panyam Tank	3rd April ..	11th July "
6	Do.	Vemulapad Tank	3rd " " ..	19th " "
7	Do.	Chetlamallaparam Tank	9th " " ..	31st " "
8	Do.	Gudur Tank	10th " " ..	30th June "
9	Do.	Budweed Tank	10th " " ..	10th July "
10	Do.	Kakanavaram Tank of Mettapally	11th May ..	29th " "
11	Do.	Markapur Tank	16th " " ..	11th Aug. "
12	Do.	Reddicherla Tank	30th " " ..	26th July "
13	Do.	Kurnool-Bollary Road	30th June ..	24th " "
14	Do.	Akumalla-Koilkuntla Road	24th July ..	13th Aug. "
15	Do.	Kakorla Tank	3rd " " ..	26th July "

APPENDIX B.

MEMORANDUM ON CERTAIN IMPORTANT POINTS IN CONNECTION WITH
THE INTERMEDIATE AND TASK-WORK SYSTEMS.

I. In the Intermediate system,

- (1) Wages are paid according to the results in conformity with the rates given in Board's Proceedings, No. 208, dated 14th May 1900, as amended by Board's Proceedings, No. 246, dated 31st May 1900. These rates are exhibited in enclosure 1.
- (2) Payments are made to the headman of each gang of the labourers and the wages are irrespective of the class or age of the workers and are entirely dependant on the quantity of work turned out.
- (2) The schedule of rates referred to in paragraph (1) above is so framed that if a digger and two carriers turn out the maximum amount of professional work, they would be able to earn not only the money value of the grain sufficient to maintain themselves, but also enough for the subsistence of an adult dependant and a non-working child. The full professional task is one-third more than the ordinary famine task in the case of earth-work. For example: if a digger and two carriers do 160 cubic feet of medium earth, they can earn $\frac{160}{1000} \times \frac{1}{2} \times 16$ annas or $\frac{1}{3}$ annas when grain sells 12 seers per rupee, and with the total wages 384 tolas of grain can be bought which will be about sufficient for the family as detailed below:—

	TOLAS.						
One digger	95
Two carriers	150 (75 each)
One adult dependant	60
One non-working child	30
Total							335
Add $\frac{1}{7}$ or rest day allowance							48
Total							383

II. In the task-work system,

- (1) Certain tasks are prescribed for the workers who are divided into three classes.
Class i—All strong and healthy adult males.
Class ii—The old and the more feeble men, immature youths who have completed their 14th year and all women.
Class iii—All working children who have completed their eighth year but not their 14th.
- (2) The tasks prescribed are those contained in Government Order, No. 215, dated 10th March 1900, communicated with Board's Proceedings, No. 137, dated 2nd April 1900. Those for metal breaking which is the kind of work at present taken for the comparative trial of the two systems are given in Enclosure 2.
- (3) So long as the works are carried out as *test works*, the payments are to be strictly proportionate to the work turned out no regard being paid to any minimum. If the tasks prescribed are fully done, the wages contained in Board's Proceedings, No. 243, dated 30th May 1900, and given in enclosure 3 to this memorandum should be paid. These rates should not be exceeded; but if the full task is not performed proportionate deduction should be made.
- (4) Payments should be made to the workers direct and the whole earnings of a gang should not be paid in a lump to one person as under the intermediate system.

- (5) When, however, works on the task-work system are converted into *Relief works*, the labourers should not be paid wages below the minima which have been fixed by Sircar and which are given in enclosure 4, unless the short work done is due to deliberate contumacy, in which case the gang may be fined to such an extent as to reduce the wage to the penal rates which are also given in the same enclosure. Fining beyond the minimum wage should be exceptional and should not be resorted to without *my sanction*. No fines should be imposed on such relief workers when the deficiency in the task performed is one-eighth or less. Fines should be inflicted in accordance with the scale given in Enclosure 5.

The following illustration is given with reference to what has been stated above.

Suppose a gang employed on metal breaking consists of 20 men, 30 women and 10 children and grain sells at 14 seers per rupee. Under the task-work system, the task which the gang should do should be explained to it before work is commenced. The lead being 25 yards, the task to be done by the gang is $20 \times 6.21 + 30 \times 4.14 + 10 \times 2.07$ or 269.1 cubic feet. If the gang does the full work, it will earn $20 \times 1\frac{1}{4} + 30 \times 1 + 10 \times \frac{3}{4}$ or 62 $\frac{1}{2}$ annas. The gang should not, of course, be paid more, even if it did more work. Under the intermediate system, the gang would, for the same amount of work, earn $\frac{270}{100} \times 27$ or 72.9 annas. Deducting $\frac{1}{2}$ of this amount being the rest day allowance included therein, the wage earned for the day for the work is $72.9 \times \frac{9}{10}$ or 62 $\frac{1}{2}$ annas.

2. It will thus be seen that there is no difference between the earnings under the two systems, if the gangs are suitably formed and if the ordinary amount of work is performed by the coolies in both the cases. It should, however, be noted that, under the intermediate system, it is *permissible* for the labourers to do a little more work up to the maximum of 7.5, 5 and 2.5 cubic feet per worker of the i, ii and iii classes, respectively, and claim the wages therefor. Whereas under the task-work system, this is not the case. The latter, however, is advantageous to gangs where women and children are unduly numerous. For example: Suppose a gang consists of 10 men, 30 women and 40 children, the task to be done by it is also 269.1. The wages amount to $10 \times 1\frac{1}{4} + 30 \times 1 + 40 \times \frac{3}{4}$ or 72 annas; whereas according to the intermediate system, the earnings are the same as before, *viz.*, 62 $\frac{1}{2}$ annas. Further, when task works are converted into *Relief works*, the inefficient workers have the advantage of the minimum wages which those employed on works carried out under the intermediate have not.

3. The work that is being carried out at Betamcherla on the task-work system is a *Test* work.

KURNOOL, COLLECTOR'S OFFICE,
Dated 21st June 1900.

MUHAMMAD RÁZA KHÁN,
Collector.

ENCLOSURE No. 1.

Table of rates for metal-breaking on the Intermediate piece-work system.

Grain at seers per rupee.	When lead does not exceed 25 yards.				Extra rate per 100 cubic feet of stone for every 100 yards of lead.
	Rate per 100 cubic feet of stone.		One anna will be paid for stone.		
	Easy to break.	Hard to break.	Easy to break.	Hard to break.	
14	RS. A. 1 11	RS. A. 2 5	C. FT. 3 7	C. FT. 2 7	RS. A. 0 3
12	1 15	2 11	3 2	2 3	0 3
11	2 2	2 15	2 9	2 1	0 3
10	2 5	3 3	2 7	2 0	0 4
9	2 9	3 9	2 4	1 8	0 4
8	2 15	4 0	2 1	1 0	0 5

NOTE.—The maximum amount of work that will be paid for will, with a lead of 25 yards, be for—

	Stone easy to break, cubic feet.	Stone hard to break, cubic feet.
Class I: Workers	7.5	5.25
„ II. „	5 0	3.5
„ III. „	2.5	1.75

or 20 per cent. more than the appropriate task for each class.

Table of rates for earthwork on the Intermediate piece-work system.

Grain at seers per rupee.	Rate per 1,000 cubic feet of					One anna will be paid for				
	Sand.	Soft earth.	Medium earth.	Hard earth.	Gravel.	Sand.	Soft earth.	Medium earth.	Hard earth.	Gravel.
14	Rs. A. 1 7	Rs. A. 1 11	Rs. A. 2 2	Rs. A. 2 14	Rs. A. 4 4	C. FT. 43-5	C. FT. 37-0	C. FT. 29-4	C. FT. 21-7	C. FT. 14-7
13	1 9	1 13	2 5	3 1	4 10	40-0	34-5	27-0	20-4	13-5
12	1 11	2 0	2 8	3 5	5 0	37-0	31-3	25-0	18-9	12-5
11	1 13	2 3	2 12	3 10	5 7	34-5	28-6	22-7	17-2	11-5
10	2 0	2 6	3 0	4 0	6 0	31-3	26-3	20-8	15-6	10-4
9	2 3	2 11	3 5	4 7	6 10	28-6	23-3	18-9	14-1	9-4
8	2 8	3 0	3 12	5 0	7 8	25-0	20-8	16-6	12-5	8-3

NOTE.—(1) The rates allowed for a lead of 25 yards and a lift of 2 yards. The extra rate for every additional 10 yards lead or one yard lift should be when grain is sold at—

											A. R.
Twelve seers	..	..	..	..	..	..	..	..	..	..	3 0
Eleven	..	..	..	..	..	..	..	..	..	..	3 5
Ten	..	..	..	..	..	..	..	..	..	..	3 9
Nine	..	..	..	..	..	..	..	..	..	..	4 2
Eight	..	..	..	..	..	..	..	..	..	..	4 8

(2) Watering, tamping and sectioning the earthwork, if done, should be paid for extra according to the schedule rates of the district.

(3) The maximum amount of work that will be paid for will be—

											C. FT.
For each digger	..	..	..	..	..	{ Sand	..	..	..	..	240
	..	..	..	..	..	{ Soft earth	..	..	..	..	200
	..	..	..	..	..	{ Medium earth	..	..	..	..	160
	..	..	..	..	..	{ Hard earth	..	..	..	..	120
	..	..	..	..	..	{ Gravel	..	..	..	..	80

ENCLOSURE No. 2.

Task table for metal breaking.

Class I=1½, II=3 III.

Lead in yards.	Easy to break, cubic feet.			Hard to break, cubic feet.]		
	Class I.	Class II.	Class III.	Class I.	Class II.	Class III.
0	7-50	5	2-50	5-25	3-5	1-75
0 to 10	6-33	4-22	2-11	4-65	3-10	1-55
25	6-21	4-14	2-07	4-5	3-	1-5
50	6-06	4-04	2-02	4-5	3-	1-5
100	5-77	3-35	1-92	4-33	2-89	1-44
200	5-29	3-53	1-76	4-05	2-70	1-35
300	4-84	3-23	1-61	3-82	2-55	1-27
400	4-53	3-02	1-51	3-60	2-40	1-20
500	4-18	2-79	1-39	3-37	2-25	1-12
600	3-99	2-63	1-33	3-25	2-17	1-08
700	3-75	2-50	1-25	3-09	2-06	1-03
800	3-49	2-33	1-16	2-91	1-94	0-97
900	3-33	2-22	1-11	2-80	1-87	0-93
1000	3-16	2-11	1-05	2-70	1-80	0-90
1200	2-82	1-88	0-94	2-40	1-60	0-80
1400	2-59	1-73	0-86	2-26	1-51	0-75
1600	2-40	1-60	0-80	2-10	1-40	0-70
1800	2-26	1-51	0-75	2-01	1-34	0-67
2000	2-14	1-43	0-71	1-90	1-27	0-63
2300	1-87	1-25	0-62	1-60	1-13	0-56
2600	1-74	1-16	0-58	1-57	1-05	0-52
2900	1-59	1-06	0-53	1-50	1-00	0-50
3200	1-41	0-94	0-47	1-30	0-87	0-43
3600	1-23	0-83	0-41	1-17	0-78	0-39
4000	1-20	0-80	0-40	1-05	0-70	0-35
4500	1-14	0-76	0-38	1-05	0-70	0-35
5000	1-05	0-70	0-35	0-97	0-65	0-32

* This is the task performed by each class of worker when the stone is stacked at his or her side.

ENCLOSURE No. 3.

When the staple food grain sells at ten seers per rupee.	Digger.	Carrier.	Minimum for adults.	Working children.		Minimum for children.	
	95 tolas.	75 Tolas.	60 Tolas.	50 Tolas.	45 Tolas.	40 Tolas.	30 Tolas.
	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
6-0	3 3	2 6	2 0	1 9	1 6	1 3	1 0
6-1	3 0	2 6	2 0	1 9	1 6	1 3	1 0
6-2	3 0	2 6	2 0	1 6	1 6	1 3	1 0
6-3	3 0	2 6	2 0	1 6	1 6	1 3	1 0
6-4	3 0	2 3	2 0	1 6	1 6	1 3	1 0
6-5	3 0	2 3	1 9	1 6	1 6	1 3	1 0
6-6	3 0	2 3	1 9	1 6	1 3	1 3	1 0
6-7	2 9	2 3	1 9	1 6	1 3	1 3	1 0
6-8	2 9	2 3	1 9	1 6	1 3	1 3	1 0
6-9	2 9	2 8	1 9	1 6	1 3	1 3	0 9
7-0	2 9	2 3	1 9	1 6	1 3	1 3	0 9
7-2	2 9	2 0	1 9	1 6	1 3	1 0	0 9
7-4	2 6	2 0	1 6	1 3	1 3	1 0	0 9
7-6	2 6	2 0	1 6	1 3	1 3	1 0	0 9
7-8	2 6	2 0	1 6	1 3	1 3	1 0	0 9
8-0	2 6	2 0	1 6	1 3	1 3	1 0	0 9
8-25	2 3	1 9	1 6	1 3	1 0	1 0	0 9
8-50	2 3	1 9	1 6	1 3	1 0	1 0	0 9
8-75	2 3	1 9	1 3	1 3	1 0	1 0	0 9
9-0	2 0	1 9	1 3	1 0	1 0	1 0	0 9
9-25	2 0	1 6	1 3	1 0	1 0	0 9	0 9
9-50	2 0	1 6	1 3	1 0	1 0	0 9	0 9
9-75	2 0	1 6	1 3	1 0	1 0	0 9	0 6
10-0	2 0	1 6	1 3	1 0	1 0	0 9	0 6
10-5	1 9	1 6	1 3	1 0	0 9	0 9	0 6
11-0	1 9	1 3	1 0	1 0	0 9	0 9	0 6
11-5	1 9	1 3	1 0	0 9	0 9	0 9	0 6
12-0	1 6	1 3	1 0	0 9	0 9	0 9	0 6
12-5	1 6	1 3	1 0	0 9	0 9	0 9	0 6
13-0	1 6	1 3	1 0	0 9	0 9	0 6	0 6
13-5	1 6	1 0	1 0	0 9	0 9	0 6	0 6
14-0	1 3	1 0	0 9	0 9	0 9	0 6	0 6
14-5	1 3	1 0	0 9	0 9	0 6	0 6	0 6
15-0	1 3	1 0	0 9	0 9	0 6	0 6	0 6
15-5	1 3	1 0	0 9	0 9	0 6	0 6	0 6
16-0	1 8	1 0	0 9	0 9	0 6	0 6	0 6

ENCLOSURE No. 4.

Class of workers.	Ordinary wage in tolas.	Minimum and rest day wage in totals.	Penal wage in tolas	Dependant's allowances in tolas.
Special {	To exceed that of class I by a constant difference.	60	45	..
I Diggers	95	60	45	..
II Carriers	75	60	45	..
III Children	50	40	30	..
DEPENDANTS AND OTHERS.				
IV Adults .. .. .	..	..	..	60
V Children .. .. .	..	..	..	$\frac{1}{4}$ to $\frac{3}{4}$ of the allowance for adults according to age and requirements.

ENCLOSURE No. 5.

(Vide B.P., No. 261, dated 6th June 1900).

STATEMENT showing the scale of fines to be imposed on relief workers for short work.

When the full wage is	The fine for short work when the shortage is			
	One-fourth to one-eighth	Half to one-fourth	Three-fourths to half	More than three-fourths
	Will be one-fourth.	Will be half.	Will be three-fourths.	Will be the whole wage.
	1	2	3	4
PICK.	PICK.	PICK.	PICK.	PICK.
2	..	1	1	2
3	..	1	2	3
4	1	2	3	4
5	1	2	3	5
6	1	3	4	6
7	1	3	5	7
8	2	4	6	8
9	2	4	6	9
10	2	5	7	10
11	2	5	8	11
12	3	6	9	12
13	3	6	9	13
14	3	7	10	14
15	3	7	11	15
16	4	8	12	16
17	4	8	12	17
18	4	9	13	18
19	4	9	14	19
20	5	10	15	20
21	5	10	15	21
22	5	11	16	22
23	5	11	17	23
24	6	12	18	24
25	6	12	18	25
26	6	13	19	26
27	6	13	20	27
28	7	14	21	28
29	7	14	21	29
30	7	15	22	30

APPENDIX C.

FAMINE TASK TABLES.

CLASSIFICATION.

Relief Workers will be divided into the following classes :—

Special Class includes all persons in responsible positions, or with special qualifications who are paid a uniform wage exceeding by a constant difference that allowed to workers in Class I. This class includes quarry men, well-sinkers, &c. It does not include persons who are paid a monthly wage or a daily wage not in proportion to that of Class I.

Workers—Class I or Digger Class includes all able-bodied male labourers who are capable of performing a task not less than 75 per cent. of that usually required from an able-bodied labourer on ordinary works.

Class II or the carrier class includes all adult female labourers, and those male labourers who are not capable of performing the task of Class I, i.e., all women and girls, boys from 12 to 16, and old men.

Class III includes all working children below 12 and over 8 years of age who are capable of doing work.

SIZE OF GANGS.

For earthwork it will generally be advisable to have gangs of from 20 to 30 workers including 5 to 6 diggers, but families and village parties must be kept together.

For metal breaking the gang should be never more than 100.

EARTHWORK.

Classes of Soil.—For all purposes of famine relief soils may be divided into—

- (1) *Sand.*
- (2) *Soft earth, i.e., loose earth, sandy loam.*
- (3) *Medium earth, i.e., wet clay, soft gravel, red loam.*
- (4) *Hard earth, i.e., hard red loam, dry stiff clay.*
- (5) *Hard gravel.*

The excavation of soft rock and hard rock is not suitable work for famine relief workers, and will, if met with, be given to the special class of workers on the wage of their class or on piece-work at suitable rates.

Class I or Diggers' Task.—The following will be the diggers' task per working day in cubic feet :—

	C. FT.
(1) Sand	180
(2) Soft earth	150
(3) Medium earth	120
(4) Hard earth	90
(5) Hard gravel	60

Proportion of Fillers and Helpers.—The first two soils will generally require a 'Helper' to assist the Digger. The last three soils will require a 'Filler' to assist the Digger, to break up clods, fill the baskets and take his turn at digging.

A *Filler* will be classed as a digger or Class I.

A *Helper* will be classed as a carrier or Class II and will generally be a boy of from 12 to 16.

The following table gives the proper proportions of Diggers, Helpers and Fillers :—

No.	Soil.	Class I Digger.	Class I Filler.	Class II Helper.	Remarks.
1	Sand	1	Nil.	1	..
2	Soft earth	1	Nil.	1	..
3	Medium earth	1	1	Nil.	Working alternately.
4	Hard earth	2	1	Nil.	Do.
5	Hard gravel	3	1	Nil.	Do.

Carriers' Task or number of carriers required per company of diggers for different soils, leads and lifts.—The diggers' task being fixed, the question to be solved is to find the minimum number of carriers required for different leads and lifts for a set of diggers who are set to do a task of a certain number of cubic feet per diem.

The following formula suggested by Mr. Higham has been adopted, viz. :—

- D = The diggers' daily task, or quantity of earth to be removed in one day by N carriers in cubic feet.
 R = "Reduced Lead" through which the earth has to be carried in feet.
 V = Total vertical lift in feet.
 H = Total horizontal lead in feet.
 C = The measure of the task of an individual carrier.
 N = Number of carriers required.

Then—

$$R = [72 + H + 12 (V-3)].$$

$$= 36 + H + 12 V.$$

Provided that V is never to be taken as less than 3 feet.

$$D R = N C.$$

$$N C = D (36 + H + 12 V).$$

$$N = \frac{D (36 + H + 12 V)}{C}.$$

"Reduced Lead" is considered as including three separate factors—

- | | | |
|--------------------------|--|------------------------|
| (1) The initial effort. | \| | (3) The vertical lift. |
| (2) The horizontal lead. | | |

The initial effort is chiefly the time lost in each trip by the carrier in waiting to receive the basket from the filler and the energy exercised in lifting the basket to the head and stepping out of the pit. It is assumed that the time and energy so lost is equivalent to carrying the load through a horizontal lead of 72 feet and also includes a vertical lift of 3 feet.

Every foot in excess of 3 feet vertical lift is taken as equal to a horizontal lead of 12 feet.

NOTE.—For further information see Appendix I to Report on the Management of Famine Relief Works, by Mr. T. Higham, C.I.E.

C The measure of the task of an individual carrier is taken as 10,000 on the assumption that a basket contains generally $\frac{1}{4}$ cubic foot of earth, and a carrier walks about 11.5 miles in a working day, half the time with an empty basket.

Tables of Carriers.—The following tables of carriers show the number of carriers required per digger for different leads and lifts and in different soils. If there should be an excess of *diggers*, superfluous *diggers* may be employed in carrying, without transfer to a lower class, provided they do the task of $1\frac{1}{2}$ carriers. Conversely when *carriers* are in excess, some of the more capable may be employed as *diggers* and given $\frac{2}{3}$ or $\frac{1}{2}$ a digger's task, still receiving class II wages, or they may be employed in breaking clods, carrying water or other duties incidental to earthwork on a large scale.

Working Children or Class III are considered as equal to $\frac{1}{2}$ a carrier.

The tables are worked out for leads in yards (or *paces*) as being most convenient, and lifts for every 3 feet or 1 yard.

To find the number of carriers for any lead and lift not shown in the table.

Mr. Higham's formula may be used or the number of carriers may be interpolated by the table of differences given below each table.

Rule.—To find the number of carriers required for any number of diggers for any lead and lift shown in the tables, multiply the number of diggers by the number in the table, and take the next whole number.

Example.—(1) Require the minimum number of carriers for gang of 15 diggers.

Soil, medium earth.

Lead 100 yards; lift 12 feet.

See Table III—

Task for 15 diggers = $15 \times 120 = 1,800$ o. ft.

Number of fillers = 15 class I.

Number of carriers = $15 \times 5.76 = 86.4$ or 87 class II.

(2) As above, lead 600 yards; lift 20 feet.

Lead 600 yards }	...	...	...	...	25.06
Lift 21 feet }	...	...	...	...	...
Difference 50 yards	...	...	...	...	1.80
+ Do. 10 "	...	...	...	...	.36
					<hr/> 27.22
— Difference 1 foot	...	...	...	...	0.144
					<hr/> 27.076
					15

406.140 = number of carriers,
say, 406

The tables have been worked out to leads of 1,000 yards and lifts of 42 feet; but they can be very easily extended by the tables of differences to any lead and lift required. Take for instance—

3,000 yards lead 60 feet lift	...	Medium earth III.
Difference for 100 yards	=	3.60
" 1,000 "	=	36.00
" 2,000 "	=	72.00
Difference for 3 feet lift	=	0.432
" 18 " "	=	2.592

Tabular No.

1,000 yards lead }	...	...	...	...	42.48
42 feet lift }	...	...	...	...	...
Add for 2,000 yards lead	...	...	...	...	72.00
" 18 feet lift	...	...	...	...	2.592

117.072 carriers per digger.

By Higham's formula.

$$N = \frac{120 (36 + 3 \times 3,000 + 12 \times 60)}{10,000} = 117.0720$$

I.—TABLE of the number of carriers required for one digger in SAND.

I.—TABLE of the number of carriers

[A digger's daily task = 180 c.ft. ; one helper

Total lift in feet.	Lead in										
	10	20	30	40	50	60	70	80	90	100	150
1	2	3	4	5	6	7	8	9	10	11	12
3	1.84	2.38	2.92	3.46	4	4.54	5.08	5.62	6.16	6.70	9.40
6	2.49	3.03	3.57	4.11	4.65	5.19	5.73	6.27	6.81	7.35	10.05
9	3.14	3.68	4.22	4.76	5.30	5.84	6.38	6.92	7.46	8.00	10.70
12	3.78	4.32	4.86	5.40	5.94	6.48	7.02	7.56	8.10	8.61	11.34
15	4.43	4.97	5.51	6.05	6.59	7.13	7.67	8.21	8.75	9.29	11.99
18	5.08	5.62	6.16	6.70	7.24	7.78	8.32	8.86	9.40	9.94	12.64
21	5.73	6.27	6.81	7.35	7.89	8.43	8.97	9.51	10.05	10.59	13.29
24	6.38	6.92	7.47	8.00	8.54	9.08	9.62	10.16	10.70	11.24	13.94
27	7.02	7.56	8.10	8.64	9.18	9.72	10.26	10.80	11.34	11.88	14.58
30	7.67	8.21	8.75	9.29	9.83	10.37	10.91	11.45	12.00	12.53	15.23
33	8.32	8.86	9.40	9.94	10.48	11.02	11.56	12.10	12.64	13.18	15.87
36	8.97	9.51	10.05	10.59	11.13	11.67	12.21	12.75	13.29	13.83	16.52
39	9.61	10.16	10.70	11.24	11.77	12.32	12.86	13.40	13.94	14.48	17.18
42	10.26	10.80	11.34	11.88	12.42	12.96	13.50	14.01	14.58	15.12	17.82

Difference lead 10 yards = 0.54
 " 50 " = 2.70
 " 100 " = 5.40

Lift 3 feet = 0.648
 " 2 " = 0.432
 " 1 foot = 0.216

II.—TABLE of carriers required for

[A digger's daily task = 150 c.ft. ; one helper

	Lead in										
	10	20	30	40	50	60	70	80	90	100	150
1	2	3	4	5	6	7	8	9	10	11	12
3	1.53	1.98	2.43	2.88	3.33	3.78	4.23	4.68	5.13	5.58	7.83
6	2.07	2.52	2.97	3.42	3.87	4.32	4.77	5.22	5.67	6.12	8.37
9	2.61	3.06	3.51	3.96	4.41	4.86	5.31	5.76	6.21	6.66	8.91
12	3.15	3.60	4.05	4.50	4.95	5.40	5.85	6.30	6.75	7.20	9.45
15	3.69	4.14	4.59	5.04	5.49	5.94	6.39	6.84	7.29	7.74	9.99
18	4.23	4.68	5.13	5.58	6.03	6.48	6.93	7.38	7.83	8.28	10.53
21	4.77	5.22	5.67	6.12	6.57	7.02	7.47	7.92	8.37	8.82	11.07
24	5.31	5.76	6.21	6.66	7.11	7.56	8.01	8.46	8.91	9.36	11.61
27	5.85	6.30	6.75	7.20	7.65	8.10	8.55	9.00	9.45	9.90	12.15
30	6.39	6.84	7.29	7.74	8.19	8.64	9.09	9.54	9.99	10.44	12.69
33	6.93	7.38	7.83	8.28	8.73	9.18	9.63	10.08	10.53	10.98	13.23
36	7.47	7.92	8.37	8.82	9.27	9.72	10.17	10.62	11.07	11.52	13.77
39	8.01	8.46	8.91	9.36	9.81	10.26	10.71	11.16	11.61	12.06	14.31
42	8.55	9.00	9.45	9.90	10.35	10.80	11.25	11.70	12.15	12.60	14.85

Difference Lead 10 yards = 0.45
 " 50 " = 2.25
 " 100 " = 4.50

Lift 3 feet = 0.54
 " 2 " = 0.36
 " 1 foot = 0.18

III.—TABLE of the number of carriers required

[A digger's daily task = 120 c. ft ;

	Lead in										
	10	20	30	40	50	60	70	80	90	100	150
1	2	3	4	5	6	7	8	9	10	11	12
3	1.224	1.58	1.94	2.30	2.66	3.02	3.38	3.74	4.10	4.464	6.26
6	1.66	2.02	2.38	2.74	3.10	3.46	3.82	4.18	4.54	4.90	6.70
9	2.09	2.45	2.81	3.17	3.53	3.89	4.25	4.61	4.97	5.33	7.13
12	2.52	2.88	3.24	3.60	3.96	4.32	4.68	5.04	5.40	5.76	7.56
15	2.95	3.31	3.67	4.03	4.39	4.75	5.11	5.47	5.83	6.19	7.99
18	3.38	3.74	4.10	4.46	4.82	5.18	5.54	5.90	6.26	6.62	8.42
21	3.82	4.18	4.54	4.90	5.26	5.62	5.98	6.34	6.70	7.06	8.86
24	4.25	4.61	4.97	5.33	5.69	6.05	6.41	6.77	7.13	7.49	9.29
27	4.68	5.04	5.40	5.76	6.12	6.48	6.84	7.20	7.56	7.92	9.72
30	5.11	5.47	5.83	6.19	6.55	6.91	7.27	7.63	7.99	8.35	10.15
33	5.54	5.90	6.26	6.62	6.98	7.34	7.70	8.06	8.42	8.78	10.58
36	5.98	6.34	6.70	7.06	7.42	7.78	8.14	8.50	8.86	9.22	11.02
39	6.41	6.77	7.13	7.49	7.85	8.21	8.57	8.93	9.29	9.65	11.45
42	6.84	7.20	7.56	7.92	8.28	8.64	9.00	9.36	9.72	10.08	11.88

Difference Lead 10 yards = 0.36
 " 50 " = 1.80
 " 100 " = 3.60

Lift 3 feet = 0.432
 " 2 " = 0.288
 " 1 foot = 0.144

required for one digger in SAND.

or class II to be allowed for each digger.]

yards.

200	250	300	350	400	450	500	600	700	800	900	1,000.
13	14	15	16	17	18	19	20	21	22	23	24
12:10	14:80	17:50	20:20	22:90	25:60	28:30	33:70	39:10	44:50	49:90	55:3
12:75	15:45	18:15	20:85	23:55	26:25	28:95	34:35	39:75	45:15	50:55	55:95
13:40	16:10	18:80	21:50	24:20	26:90	29:60	35	0:40	46:80	51:20	56:60
14:04	16:74	19:44	22:14	24:34	27:54	30:24	35:64	41:04	46:44	51:84	57:24
14:70	17:39	20:09	22:79	25:49	28:19	30:59	36:29	41:69	47:09	52:49	57:89
15:34	18:04	20:74	23:44	26:14	28:84	31:54	36:94	42:34	47:74	53:14	58:54
15:99	18:68	21:39	26:09	26:79	29:49	32:19	37:69	42:99	48:39	53:79	59:19
16:64	19:34	22:04	24:74	27:44	30:14	32:84	38:24	43:64	49:04	54:44	59:84
17:28	19:38	22:68	25:38	28:08	30:78	33:48	38:88	44:28	49:68	55:08	60:48
17:93	20:63	23:33	26:03	28:73	31:43	34:13	39:53	44:93	50:33	55:73	61:13
18:58	21:28	23:98	26:68	29:38	32:08	34:78	40:18	45:58	50:98	56:38	61:78
19:23	21:92	24:63	27:33	30:04	32:73	35:43	40:82	46:23	51:63	57:03	62:43
19:88	22:57	25:28	27:98	30:68	33:38	36:08	41:48	46:88	52:28	57:68	63:08
20:52	23:22	25:92	28:62	31:32	34:02	36:72	42:12	47:52	52:92	58:32	63:72

one digger in SOFT EARTH.

or class II to be allowed for each digger].

10:08	12:33	14:58	16:83	19:08	21:33	23:58	28:08	32:58	37:08	41:58	46:08
10:62	12:87	15:12	17:37	19:62	21:87	24:12	28:62	33:12	37:62	42:12	46:62
11:16	13:41	15:66	17:91	20:16	22:41	24:66	29:16	33:66	38:16	42:66	47:16
11:70	13:95	16:20	18:45	20:70	22:95	25:20	29:70	34:20	38:70	43:20	47:70
12:24	14:49	16:74	18:99	21:24	23:49	25:74	30:24	34:74	39:24	43:74	48:24
12:78	15:01	17:28	19:53	21:78	24:03	26:28	30:78	35:28	39:78	44:28	48:78
13:32	15:57	17:82	20:07	22:32	24:57	26:52	31:32	35:82	40:32	44:82	49:32
13:86	16:11	18:36	20:61	22:86	25:11	27:36	31:86	36:36	40:86	45:36	49:86
14:40	16:65	18:90	21:15	23:90	26:65	27:90	32:40	36:90	41:40	45:90	50:40
14:94	17:19	19:44	21:69	23:94	26:19	28:44	32:94	37:44	41:94	46:44	50:94
15:48	17:73	19:98	22:23	24:98	26:73	28:98	33:48	37:98	42:48	46:98	51:48
16:02	18:27	20:52	22:77	25:02	27:27	29:52	34:02	38:52	43:02	47:52	52:02
16:56	18:81	21:06	23:31	25:56	27:81	30:06	34:56	39:06	43:56	48:06	52:56
17:10	19:35	21:60	23:85	26:10	28:35	30:60	35:10	39:60	44:10	48:60	53:10

for one digger in MEDIUM EARTH.

one filler per digger.]

8:06	9:86	11:66	13:46	15:26	17:06	18:86	22:46	26:06	29:66	33:26	36:86
8:50	10:30	12:10	13:90	15:70	17:50	19:30	22:90	26:50	30:10	33:70	37:30
8:93	10:73	12:63	14:33	16:13	17:93	19:73	23:33	26:93	30:53	34:13	37:73
9:36	11:16	12:96	14:76	16:56	18:36	20:16	23:76	27:36	30:96	34:56	38:16
9:79	11:59	13:39	15:19	16:99	18:79	20:59	24:19	27:79	31:39	34:99	38:59
10:22	12:02	13:82	15:62	17:42	19:22	21:02	24:62	28:22	31:82	35:42	39:02
10:66	12:46	14:26	16:06	17:86	19:66	21:46	25:86	28:66	32:26	35:86	39:46
11:09	12:89	14:69	16:49	18:29	20:09	21:89	25:49	29:09	32:69	36:29	39:89
11:52	13:32	15:12	16:92	18:72	20:52	22:32	25:92	29:52	33:12	36:72	40:32
11:95	13:75	15:55	17:35	19:15	20:95	22:75	26:35	29:95	33:55	37:15	40:75
12:38	14:18	15:98	17:78	19:58	21:38	23:18	26:78	30:38	33:98	37:58	41:18
12:82	14:62	16:42	18:22	20:02	21:82	23:62	27:22	30:82	34:42	38:02	41:62
13:25	15:05	16:85	18:65	20:45	22:25	24:05	27:65	31:25	34:85	38:45	42:05
13:68	15:48	17:28	19:08	20:88	22:68	24:48	28:08	31:68	35:28	38:88	42:48

IV.—TABLE of the number of carriers

[A digger's daily task =

Total lift in feet.	Lead in										
	10	20	30	40	50	60	70	80	90	100	150
	1	2	3	4	5	6	7	8	9	10	12
3	0.92	1.19	1.46	1.73	2.00	2.27	2.54	2.81	3.08	3.35	4.70
6	1.24	1.51	1.78	2.05	2.32	2.59	2.86	3.13	3.40	3.67	5.02
9	1.57	1.84	2.11	2.38	2.65	2.92	3.19	3.46	3.73	4.00	5.35
12	1.89	2.16	2.43	2.70	2.97	3.24	3.51	3.78	4.05	4.32	5.67
15	2.21	2.48	2.75	3.02	3.29	3.56	3.83	4.10	4.37	4.64	5.99
18	2.54	2.81	3.08	3.35	3.62	3.89	4.16	4.43	4.70	4.97	6.32
21	2.86	3.13	3.40	3.67	3.94	4.21	4.48	4.75	5.02	5.29	6.64
24	3.19	3.46	3.73	3.99	4.27	4.54	4.81	5.08	5.35	5.62	6.97
27	3.51	3.78	4.05	4.32	4.59	4.86	5.13	5.40	5.67	5.94	7.29
30	3.83	4.10	4.37	4.64	4.91	5.18	5.45	5.72	5.99	6.26	7.61
33	4.16	4.43	4.70	4.97	5.24	5.51	5.78	6.05	6.32	6.59	7.94
36	4.48	4.75	5.02	5.29	5.56	5.83	6.10	6.37	6.64	6.91	8.26
39	4.81	5.08	5.35	5.62	5.89	6.16	6.43	6.70	6.97	7.24	8.59
42	5.13	5.40	5.67	5.94	6.21	6.48	6.75	7.02	7.29	7.56	8.91

Difference Lead 10 yards = 0.27
 " 50 " = 1.35
 " 100 " = 2.70

Lift 3 feet = 0.324
 " 2 " = 0.216
 " 1 foot = 0.108

V.—TABLE of the number of carriers required

[A digger's daily task = 60 cubic feet;

3	0.61	0.79	0.97	1.15	1.33	1.51	1.69	1.87	2.05	2.23	3.13
6	0.83	1.01	1.19	1.37	1.55	1.73	1.91	2.09	2.27	2.45	3.35
9	1.04	1.22	1.40	1.58	1.76	1.94	2.12	2.30	2.48	2.66	3.56
12	1.26	1.44	1.62	1.80	1.98	2.16	2.34	2.52	2.70	2.88	3.78
15	1.47	1.65	1.83	2.01	2.19	2.37	2.55	2.73	2.91	3.09	3.99
18	1.69	1.87	2.05	2.23	2.41	2.59	2.77	2.95	3.13	3.31	4.21
21	1.91	2.09	2.27	2.45	2.63	2.81	2.99	3.17	3.35	3.53	4.43
24	2.12	2.30	2.48	2.66	2.84	3.02	3.20	3.38	3.56	3.74	4.64
27	2.34	2.52	2.70	2.88	3.06	3.24	3.42	3.60	3.78	3.96	4.86
30	2.55	2.73	2.91	3.09	3.27	3.45	3.63	3.81	3.99	4.17	5.07
33	2.77	2.95	3.13	3.31	3.49	3.67	3.85	4.03	4.21	4.39	5.29
36	2.99	3.17	3.35	3.53	3.71	3.89	4.07	4.25	4.43	4.61	5.51
39	3.20	3.38	3.56	3.74	3.92	4.10	4.28	4.46	4.64	4.82	5.72
42	3.42	3.60	3.78	3.96	4.14	4.32	4.50	4.68	4.86	5.04	5.94

Difference Lead 10 yards = 0.18
 " 50 " = 0.90
 " 100 " = 1.80

Lift 3 feet = 0.216
 " 2 " = 0.144
 " 1 foot = 0.072

Note.—This table might be extended to 5,000 yards by the table of differences.

required for one digger in HARD EARTH.

90 cubic feet; $\frac{1}{2}$ filler per digger.]

yards.

200	250	300	350	400	450	500	600	700	800	900	1,000
13	14	15	16	17	18	19	20	21	22	23	24
6.05	7.40	8.75	10.10	11.45	12.80	14.15	16.85	19.55	22.25	24.95	27.65
6.37	7.72	9.07	10.42	11.77	13.12	14.47	17.17	19.87	22.57	25.27	27.97
6.70	8.05	9.40	10.75	12.10	13.45	14.80	17.50	20.20	22.90	25.60	28.30
7.02	8.37	9.72	11.07	12.42	13.77	15.12	17.82	20.52	23.22	25.92	28.62
7.34	8.69	10.04	11.39	12.74	14.09	15.44	18.14	20.84	23.54	26.24	28.94
7.67	9.02	10.37	11.72	13.07	14.42	15.77	18.47	21.17	23.87	26.57	29.27
7.99	9.34	10.69	12.04	13.39	14.74	16.09	18.79	21.49	24.19	26.89	29.59
8.32	9.67	11.02	12.37	13.72	15.07	16.42	19.12	21.82	24.52	27.22	29.92
8.64	9.99	11.34	12.69	14.04	15.39	16.74	19.44	22.14	24.84	27.54	30.24
8.96	10.31	11.66	13.01	14.36	15.71	17.06	19.76	22.46	25.16	27.86	30.56
9.29	10.64	11.99	13.34	14.69	16.04	17.39	20.09	22.79	25.49	28.19	30.89
9.61	10.96	12.31	13.66	15.01	16.36	17.71	20.41	23.11	25.81	28.51	31.21
9.94	11.29	12.64	13.99	15.34	16.69	18.04	20.74	23.44	26.14	28.84	31.54
10.26	11.61	12.96	14.31	15.66	17.01	18.36	21.06	23.76	26.46	29.16	31.86

for one digger in HARD GRAVEL.

$\frac{1}{2}$ filler per digger.]

4.03	4.93	5.83	6.73	7.63	8.53	9.43	11.23	13.03	14.83	16.63	18.43
4.25	5.15	6.05	6.95	7.85	8.75	9.65	11.45	13.25	15.05	16.85	18.65
4.46	5.36	6.26	7.16	8.06	8.96	9.86	11.66	13.46	15.26	17.06	18.86
4.68	5.58	6.48	7.38	8.28	9.18	10.08	11.88	13.68	15.48	17.28	19.08
4.89	5.79	6.69	7.59	8.49	9.39	10.29	12.09	13.89	15.69	17.49	19.29
5.11	6.01	6.91	7.81	8.71	9.61	10.51	12.31	14.11	15.91	17.71	19.51
5.33	6.23	7.13	8.03	8.93	9.83	10.73	12.53	14.33	16.13	17.93	19.73
5.54	6.44	7.34	8.24	9.14	10.04	10.94	12.74	14.54	16.34	18.14	19.94
5.76	6.66	7.56	8.46	9.36	10.26	11.16	12.96	14.76	16.56	18.36	20.16
5.97	6.87	7.77	8.67	9.57	10.47	11.37	13.17	14.97	16.77	18.57	20.37
6.19	7.09	7.99	8.89	9.79	10.69	11.59	13.39	15.19	16.99	18.79	20.59
6.41	7.31	8.21	9.11	10.01	10.91	11.81	13.61	15.41	17.21	19.01	20.81
6.62	7.52	8.42	9.32	10.22	11.12	12.02	13.82	15.62	17.42	19.22	21.02
6.84	7.74	8.64	9.54	10.44	11.34	12.24	14.04	15.84	17.64	19.44	21.24

METAL-BREAKING.

Stones may be divided into two classes—

(1) Easy to break.—(2) Hard to break.

The task will vary with the lead, or the distance the stone has to be carried to the breaker. The stone will always be considered as easy to procure.

Where the stone is hard to procure and quarrying is necessary, a separate gang must be put on to quarry the stone and should be separately tasked as special class or class I according to the discretion of the officer in charge. The task per class I unit for quarrying will be from 30 c. ft. to 40 c. ft. per day according to the nature of the stone.

Task Table for Metal-breaking.

[Class I = 1½ II = 3 III.]

Lead in yards.	Easy to break, c. ft.			Hard to break, o. ft.		
	Class I.	Class II.	Class III.	Class I.	Class II.	Class III.
0	7.50	5	2.50	5.25	3.5	1.75*
0 to 10	6.33	4.22	2.11	4.65	3.10	1.55
25	6.21	4.14	2.07	4.5	3	1.5
50	6.06	4.04	2.02	4.5	3	1.5
100	6.77	3.85	1.92	4.33	2.89	1.44
200	6.29	3.53	1.76	4.05	2.70	1.35
300	4.84	3.23	1.61	3.82	2.55	1.27
400	4.53	3.02	1.51	3.60	2.40	1.20
500	4.18	2.79	1.39	3.37	2.25	1.12
600	3.99	2.66	1.33	3.25	2.17	1.08
700	3.75	2.50	1.25	3.09	2.06	1.03
800	3.49	2.33	1.16	2.91	1.94	0.97
900	3.33	2.22	1.11	2.80	1.87	0.93
1,000	3.16	2.11	1.05	2.70	1.80	0.90
1,200	2.82	1.88	0.94	2.40	1.60	0.80
1,400	2.59	1.73	0.86	2.26	1.51	0.75
1,600	2.40	1.60	0.80	2.10	1.40	0.70
1,800	2.26	1.51	0.75	2.01	1.34	0.67
2,000	2.14	1.43	0.71	1.90	1.27	0.63
2,300	1.87	1.25	0.62	1.69	1.13	0.56
2,600	1.74	1.16	0.58	1.57	1.05	0.52
2,900	1.59	1.06	0.53	1.50	1.00	0.50
3,200	1.41	0.94	0.47	1.30	0.87	0.43
3,600	1.23	0.83	0.41	1.17	0.78	0.39
4,000	1.20	0.80	0.40	1.05	0.70	0.35
4,600	1.14	0.76	0.38	1.05	0.70	0.35
5,000	1.05	0.70	0.35	0.97	0.65	0.32

* The first line shows the task performed by each class of worker when the stone is stacked ready at his or her side.

Example.—A gang of 100 workers consists of—

Class I	...	...	...	...	...	...	...	...	...	20
„ II	...	...	...	...	...	...	...	...	...	60
„ III	...	...	...	...	...	...	...	...	...	20

Lead 400 yards, stone easy to break

$$\text{Task for gang} = \begin{cases} 20 \times 4.53 = 90.60. \\ 60 \times 3.02 = 181.20. \\ 20 \times 1.51 = 35.20. \end{cases}$$

307.00 c. ft.

The tables are based in the following hypotheses :—

A class II worker, i.e., a woman—

(1) *Breaking*—can break—

5 c. ft. metal easy to break,

3.5 c. ft. metal hard to break,

when the stone is stacked ready at her side.

(2) *Collection.*—It is assumed that a class II worker can carry $\frac{1}{3}$ c. ft. work at the rate of 60 yards per minute, and work for 7 hours out of the 8 allotted for work each day; 5 minutes is allowed for collecting $\frac{1}{3}$ c. ft.

Example.—Class II unit; lead 200 yards; stone easy to break.

Total distance travelled 400 yards.

Time at 60 yards per minute = 6.66 minutes.

Add 5 minutes for collection = 11.66 minutes, total time per trip.

Number of trips in 7 hours = 36.

Cubic feet carried = $\frac{3}{4}$ = 12.

∴ one class II unit carries 12 c. ft.

2·1 class II unit will break 12 c. ft. at 5 c. ft. per unit.

∴ 3·4 units = 12 c. ft.

or 1 unit = 3·53 c. ft.

The following table gives the number of carrier units of class II required per unit breaker class II. Vide Table on page 94.

For other classes I and III the same proportion, i.e.,

$I = 1\frac{1}{2}$ II = 3 III will give numbers for those classes :—

Table of Class II Carriers required per unit Class II Breaker.

Lead in yards.	Carrier per unit breaker.		Lead in yards.	Carrier per unit breaker.	
	Easy to break.	Hard to break.		Easy to break.	Hard to break.
50	0·24	0·17	1,400	1·89	1·31
100	0·30	0·21	1,600	2·17	1·51
200	0·42	0·29	1,800	2·32	1·61
300	0·54	0·38	2,000	2·50	1·75
400	0·65	0·46	2,300	3·03	2·13
500	0·79	0·55	2,600	3·33	2·32
600	0·88	0·62	2,900	3·85	2·63
700	1	0·70	3,200	4·35	3·03
800	1·16	0·81	3,600	5·00	3·57
900	1·25	0·83	4,000	5·00	3·57
1,000	1·37	0·96	4,500	5·55	3·85
1,200	1·67	1·16	5,000	6·25	4·35

Rule.—To find the number of carriers required per breaker for any lead, multiply the number of breakers by the tabular number and the nearest number gives the carriers required. The table is made out for class II workers. Class I workers, except in ballast breaking for railways, should generally be employed in digging or quarrying. The table, however, can be used for classes I and III, thus—

In reckoning the number of breakers count every class I breaker as $1\frac{1}{2}$ and every class III breaker at $\frac{1}{2}$.

Take the examples given above—20, class I; 60, class II; 20, class III :—

Lead 400 yards—

Task = 307 c. ft. easy to break.

20 class I = 30 class II.

60 class II = 60 class II.

20 class III = 10 class II.

100 class II.

Breakers required = $\frac{307}{5} = 61$

Carriers required $61 \times 0.65 = 39.65$

100

10 class I and 46 class II to break and rest to carry.

SPREADING METAL AND CONSOLIDATING WITH A FINISHING COAT OF GRAVEL.

This is difficult work to task and the Engineering officer must use his discretion in arranging the gangs and tasking them. The following is given as an example :—

It is assumed that the metal and gravel has been stacked along the road side.

Taking a typical gang as composed of—

20 men	...	...	...	...	Class I.
59 adults	...	...	...	...	„ II (women, boys and old men).
20 children	...	...	...	...	„ III.

Road-making may be divided into—

(1) Picking up the surface 3" deep and sectioning two template, watering and ramming.

(2) Laying first coat of metal 3" thick and blending it with $\frac{1}{2}$ " gravel including watering and ramming.

(3) Laying second coat of metal 3" thick after mixing with $\frac{1}{3}$ " its bulk of gravel, watering and ramming.

(4) Laying finishing coat of $\frac{1}{2}$ " gravel, including watering and ramming.

For these four operations, the gang should be organised as follows, the organisation being the same for the second, third and fourth operations:—

First operation—Picking up, sectioning, watering and ramming.

Members of gang.	Pickaxes.	Assist hand cooly with temple, &c.	Mamooties to draw up earth sides to contro.	Ramming.	Breaking clods, removing large stones.	Watering.	Total.
Class I	14	4	6	6	..	..	30
" II .. .. .	..	..	..	6	23	20	49
" III .. .. .	..	..	..	..	20	..	20

SECOND, third and fourth operations—Laying first coat of metal 3", &c.

Members of gang.						Fill baskets.	Spread mud or gravel.	Ramming.	Watering.	Carrying mud or gravel.	Breaking clods, &c.	Total.
Class	I	..	..	..	..	6	5	20	..	..	..	30
"	II	..	..	..	..	..	..	..	20	16	13	49
"	III	..	..	..	..	..	..	..	..	20	..	20

As in the fourth operation, the quantity of material to be carried and spread is small, the men and women not required for this purpose should be placed on carrying water or ramming, both of which operations should be most thoroughly done at this stage.

The proper task for a gang constituted as above is $\frac{1}{6}$ furlong of 15' road per day for each of the four operations, so that a gang should complete $\frac{1}{6}$ furlong in 4 days and 1 furlong in 24 days.

The task would, therefore, be $\frac{110 \times 16}{208} = 7.9$, say, 8 sq. ft. per class III unit.

We may accordingly put the task at—

[illegible]

N.B.—The task per unit is fixed slightly above that worked out to allow for fluctuation in numbers, delays, and for portions of work which may have to be re-done.

If water has to be brought from a distance, and the numbers provided for carrying water prove insufficient, one or more gangs must be put on specially to carry water, to supplement the water of the road-making gangs.

Taking the average length of road completed by 1 gang as 100 feet in 4 days, a gang will do a furlong in a month; 8 gangs a mile and 24 gangs 3 miles. Gangs should be deputed to repair the part of road completed and opened for traffic when it becomes cut up by carts.

See also Mr. DeWinton's Circular on Road-making, No. 59, III Circle, of 7th August 1897.

GRAVELLED ROADS.

It may be often necessary to form gravelled roads only. The gravel is generally laid 12" thick and the same operations as above will be followed. The second, third and fourth operations being to lay successive layers of gravel 4" thick, well water and rain.

The task may be put at per 15' road—12" thick—

[illegible]

12 lbs. " " III "

Molesworth gives the following weights of different materials per cubic foot:—

The head loads will be—

We get $\frac{10,000}{\text{reduced lead in ft.}} = \text{cubic feet carried per class II worker per day.}$ After 500 yards, the initial lead of 72 ft. has been omitted, as the fraction is very small. Class I workers should be employed in filling the baskets.

For lifts—12' lead = 1' lift.

Table showing cubic feet carried per day for different leads per Class I, II and III unit.

Removing prickly-pear depends on the thickness of growth. The following tasks are suggested:—

[illegible]

APPENDIX D.

CIRCULAR ISSUED BY THE BOARD OF REVENUE AND COMMUNICATED BY THE COLLECTOR OF KURNOOL.

Famine Test-works on the Intermediate Piece-work System.

The essential principle of the intermediate system is that payment is made in strict accordance with the amount of work turned out, subject to certain maxima specified in the tables of rates; work done in excess of maxima will not be paid for, and no distinction is drawn between professional and non-professional workers.

2. The scale of rates to be offered will be notified by the Collector and no addition to, or deduction from, this scale may be made without his sanction, except as provided in the foot-notes to the table of rates printed in Board's Proceedings, No. 309, dated 29th June 1900. In the case of earthwork the officers in the immediate charge of works must exercise the greatest care in classifying the soil and adjusting the rates according to its condition. In doubtful cases, a rate intermediate between those in the tables may be given, for instance, between gravel and hard earth; but such rates should be reported to the Collector for confirmation.

3. In the formation of gangs the officer in charge must use his own discretion, but, as far as possible, the workers may be allowed to form their own gangs, and village parties and family-groups should be kept in the same gangs. Care must be taken to distribute the inefficient, if not very numerous, among the different gangs, but, if they are very numerous, the inefficient should be formed into separate gangs and given an easier task, *i.e.*, be paid at a higher rate for the work they turn out. Any alteration in the rates due to variations in the price of grain will be intimated by the Tahsildars, but no change can be made from one rate to another unless prices rise to or above the next higher rate shown in the tables or conversely.

4. Payments should, as a rule, be made twice a week. The money earned should be given to the headman in the presence of the gang, who should be told the amount paid and the number of days work that it represents. Payments will be made to the nearest anna only. Allowances for extra lead and lift will be rounded to the nearest quarter anna. Five yards and over in lead to be taken as ten yards, one foot and-a-half or more in lift to be taken as one yard.

5. Forms * Nos. 20 and 21 should be used as well as the ordinary Public Works forms 15 and 16 unless and until paymasters are required.

* *Vide* appendices A and B.

6. For the present all test-works in the districts of Bellary, Anantapur, Cuddapah and Kurnool will be on intermediate piece-work system, except in cases where it may otherwise be ordered by the Collector. Works started on the intermediate piece-work system can, if ordered, be converted into works on the eodo system. If the number of inefficient becomes large on an intermediate piece-work, the Collector should be informed and the weakly persons dealt with according to the rules in Board's Proceedings, No. 37, dated 31st January 1900.

APPENDIX E.

PROCEEDINGS of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 243, dated 30th May 1900.

The Hon'ble Mr. F. A. NICHOLSON, C.I.E.

Read—the following G.O., No. 514, Revenue, dated 25th May 1900 :—

Read—again G.O., No. 217, Revenue, dated 10th March 1900.

Read—again G.O., No. 487, Revenue, dated 18th May 1900.

Read—again G.O., No. 511, Revenue, dated 25th May 1900.

Read—again G.O., No. 513, Revenue, dated 25th May 1900.

Order—No. 514, Revenue, dated 25th May 1900.

In view of the decisions arrived at in the last three Government Orders again read above, the following revised instructions are issued in supersession of those contained in G.O., No. 217, Revenue, dated 10th March 1900, for the classification and tasking of relief workers and the payment of wages and allowances to them and their dependants.

2. *Classification.*—Relief workers on task-work will be divided into the following classes :—

Special class.—To include all persons in responsible positions or with special qualifications who are paid a uniform wage exceeding by a constant difference that allowed to workers in class I.

Class I, to include all strong and healthy adult males.

Class II, to include the older and the more feeble men, immature youths who have completed their fourteenth year, and all women.

Class III, to include working children who have completed their eighth year but not their fourteenth.

3. The definition of the special class given above is taken from paragraph 445 of the report of the Indian Famine Commission of 1898 and from the remarks made in paragraph 440 of the Commission's report it appears that this class is intended to include mates or heads of gangs or others holding a slightly responsible position, or labourers with special qualifications, such as quarry-men, water-carriers or others whom it is necessary to entertain for the proper control of the labour or prosecution of the work. It also appears from paragraph 440 that it is an essential condition that the wage of labourers returned in the special class should exceed that of class I by a constant difference and that no persons who are paid a monthly wage or a daily wage differing from the wages of the prescribed classes should be returned as relief workers. The Government also observes that in the North-Western Provinces and Oudh this constant difference has been fixed by the Local Government at two pice and in the Central Provinces at one pice.

So far as Government is aware, no "special" class, as thus defined, has ever been recognised in this Presidency, and the Government is not sure what class of persons the Commission intends to include in the designation "mates of gangs." The Madras gang-maistries must know how to read and write sufficiently to keep muster rolls, and one or two pice extra would probably not suffice to secure the services of competent men. Nor does Government see why a water carrier should necessarily belong to the special class nor why he should receive the same wage as a quarry-man. In these circumstances the Government hesitates to issue specific instructions as to what relief workers should be placed in the special class or to fix the difference by which the wage of this class is to exceed that of class I. The Board of Revenue is requested to give its opinion in consultation with Collectors, if necessary, as to what classes of workmen the special class should be held to include and what the constant difference in their wage should be.

4. *Tasks.*—The tasks to be required of the labourers in classes I, II and III will be the tasks shown in the tables sanctioned in G.O., No. 215, Revenue, dated 10th March 1900. No work will be exacted from children below 8 years of age, but children of 8 to 14 will be required to work unless physically unfit.

5. *Wages and allowances.*—The ordinary daily wages, the minimum wages and the penal wages to be paid to workers will be the money-value of the amounts of grain shown in table No. I appended, calculated at current prices to the nearest pice in accordance with table No. II appended. The rest-day allowances of workers where the payment of such allowances is authorised by the Board of Revenue will be the same as the minimum wage. Nursing mothers will be paid class II wage and the allowance of a non-working child under eight years. The allowances to be made to non-working adult and children and dependants when the gratuitous relief of such dependants is sanctioned are also shown in table I appended.

(True Extract.)

(Signed) N. E. MARJORIBANKS,
for Secretary to Government.

To the Board of Revenue, Revenue Settlement.
,, Public Works Department.
,, Financial Department.
,, Local and Municipal Department.

APPENDIX.

STATEMENT No. I.

Class of workers.	Ordinary wage in tolas	Minimum and rest-day wage in tolas.	Penal wage in tolas.	Dependants' allowances in tolas.
Special	To exceed that of class I by a constant difference.	60	45	..
I. Diggers		96	45	..
II. Carriers		75	45	..
III. Children		60	40	30
<i>Dependants and others.</i>				
IV. Adults .. ..	..	..	..	60
V. Children .. ..	..	..	..	$\frac{1}{2}$ to $\frac{2}{3}$ of the allowance for adults accord- ing to age and require- ments.

STATEMENT No. II.

When the staple food- grain sells at ten seers per rupee.	Digger.	Carrier.	Minimum for adults.	Working children.	—	Minimum for children.	—
	95 tolas	75 tolas.	60 tolas.	50 tolas.	45 tolas.	40 tolas.	30 tolas.
	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
6-0	3 3	2 6	2 0	1 9	1 6	1 3	1 0
6-1	3 0	2 6	2 0	1 9	1 6	1 3	1 0
6-2	3 0	2 6	2 0	1 6	1 6	1 3	1 0
6-3	3 0	2 6	2 0	1 6	1 6	1 3	1 0
6-4	3 0	2 3	2 0	1 6	1 6	1 3	1 0
6-5	3 0	2 3	1 9	1 6	1 6	1 3	1 0
6-6	3 0	2 3	1 9	1 6	1 3	1 3	1 0
6-7	2 9	2 3	1 9	1 6	1 3	1 3	1 0
6-8	2 9	2 3	1 0	1 6	1 3	1 3	1 0
6-9	2 9	2 3	1 9	1 6	1 3	1 3	0 9
7-0	2 9	2 3	1 0	1 6	1 3	1 3	0 9
7-2	2 9	2 0	1 0	1 6	1 3	1 0	0 9
7-4	2 6	2 0	1 6	1 3	1 3	1 0	0 9
7-6	2 6	2 0	1 6	1 3	1 3	1 0	0 9
7-8	2 6	2 0	1 6	1 3	1 3	1 0	0 9
8-0	2 6	2 0	1 6	1 3	1 3	1 0	0 9
8-25	2 3	1 9	1 6	1 3	1 0	1 0	0 9
8-50	2 3	1 9	1 6	1 3	1 0	1 0	0 9
8-75	2 3	1 9	1 3	1 3	1 0	1 0	0 9
9-0	2 0	1 9	1 3	1 0	1 0	1 0	0 9
9-25	2 0	1 6	1 3	1 0	1 0	0 9	0 9
9-50	2 0	1 6	1 3	1 0	1 0	0 9	0 9
10-75	2 0	1 6	1 3	1 0	1 0	0 9	0 6
10-0	2 0	1 6	1 3	1 0	1 0	0 9	0 6
10-5	1 9	1 6	1 3	1 0	0 9	0 9	0 6
11-0	1 9	1 3	1 0	1 0	0 9	0 9	0 6
11-5	1 9	1 3	1 0	0 9	0 9	0 9	0 6
12-0	1 6	1 3	1 0	0 9	0 9	0 9	0 6
12-5	1 6	1 3	1 0	0 9	0 9	0 9	0 6
13-0	1 6	1 3	1 0	0 9	0 9	0 6	0 6
13-5	1 6	1 0	1 0	0 9	0 9	0 6	0 6
14-0	1 3	1 0	0 9	0 9	0 9	0 6	0 6
14-5	1 3	1 0	0 9	0 9	0 6	0 6	0 6
15-0	1 3	1 0	0 9	0 9	0 6	0 6	0 6
15-5	1 3	1 0	0 9	0 9	0 6	0 6	9 6
16-0	1 3	1 0	0 9	0 9	0 6	0 6	0 6

RESOLUTION—No. 243, dated 30th May 1900.

Communicated to all Collectors for information and guidance in continuation of B.P. No. 129 of 1900.

2. The Collectors of Ganjam, Vizagapatam, Nellore, Kurnool, Bellary, Anantapur and Cuddapah are requested to submit reports at a very early date on the point referred to in paragraph 3 of the Government Order.

3. The task-tables alluded to in paragraph 4 of the Government Order will be found printed in B.P. No. 137 of 1900.

4. The scale of wages now prescribed should be brought into force on any test or relief works that may be carried out on the task-work system.

On test works payment will be strictly proportionate to the work turned out, no regard being paid to any minimum.

On relief works fining will be regulated according to section 106 of the Famine Code as revised in G.O., No. 257, Revenue, dated 21st April 1897, and paragraph 20 of G.O., No. 590, Revenue, dated 11th October 1898. On relief works no fine will be imposed if full seven-eighths of the prescribed task is performed. If the deficiency be not more than one-fourth, but exceeds one-eighth, the fine will be one-fourth the wages earnable omitting to deduct fractions of a pice; if the deficiency exceeds one-fourth and is less than half the task, half the wage, omitting fractions of a pice, will be the fine. On relief works these fines are subject to the limit of the minimum wage except in cases of contumacy when the limits will be the penal wages of 45 tolas for adults and 30 tolas for children.

5. Nursing mothers will be paid one pice more than the carrier-class wage.

(True Copy and Extract.)

(Signed) C. BENSON,
Deputy Director,
for Secretary,

To all Collectors (Divisional-officers, Executive Engineer
and Tahsildars).

Copy to the Secretary to Government, Revenue Department.

" " Chief Engineer.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION, BY H. O. D. HARDING, ESQ., I.C.S., COLLECTOR OF CUDDAPAH

INTRODUCTORY.

Questions.

Answers.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

1. Good. 1898 was a good year. 1897 was good enough to put an end to the 1896-97 famine. I joined the district in June 1898, *i.e.*, before the rains. The 1896-97 famine was then over.

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. Our south-west monsoon did not come till September. Hence, June-July sowings were not normal. September sowings were good. South-west crops were bad owing to almost no rain till September. North-east crops were bad owing to no rain after 31st October.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) 25.09 inches.
(b) 14.73 inches in 1899. It represents 58 per cent. of the average.
(c) In October 1900.
(d) 9.26 inches from June to September 1900. It is 63 per cent. of the average for the corresponding period.

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharif* harvest of 1899 represent?

4. No statistics available, the statement showing outturn of *kharif* crops harvested having been ordered to be discontinued in the Board's Proceedings, Revenue Settlement No. 10 Routine, dated 3rd January 1899.

5. What percentage of the total population of your district depends exclusively on agriculture—

5. No statistics available.

(a) as petty cultivators?

(b) as labourers?

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Rest works.
- (b) Poor houses
- (c) Kitchens { (i) on works.
(ii) elsewhere.
- (d) Organisation of private charity, especially in towns
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or local boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

6. Assumed when crop failures were worst. Then test works were started.

7. Failure of rains and crops and consequence absence of food and labour.

8. Breaking metal. Payment for work done and fairly hard day's work.

- 9. (a) Yes.
- (b) No.

10. Large works.

For village works we had many small tanks for repairs and had estimates ready.

- 11. (a) Test works came first.
- (b), (c) and (d) were not started.
- (e) Forests were thrown open when test works started.

12. (a), (b) and (c) nil till the Indian Famine Fund gave us money. We then fed the poor in towns and some villages and had Taluk committees.

(d) Revenue Inspectors, Tahsildars, and Divisional officers and the Collector inspected.

13. Loans did not increase much. People have already borrowed largely and owing to continued drought the wells they have dug have often not succeeded. They are shy of more loans.

14. Wells are invaluable both for (a), (b) and (c). Many people employed labour in well-deepening. But some wells with heavy stone revetments cannot be deepened or the revetment will fall in. Cuddapah is now 36 inches behind the normal rainfall in three years. Many wells which are excellent when it rains have gone dry and deepening is difficult for this reason. Many gardens have given good crops at enormous prices during this distress. Many also have failed as thoroughly as the dry lands.

- 15. Road-works—
Under District Board.
Local Fund Engineer.

16. Task work was not carried out for long by the Public Works Department. In fact, the Board of Revenue did not intend task work to

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test works into regular relief works?

19 to 23. * * *

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not, please specify the matters in which they were independent.

26. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 42b of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable? (e.g., in varying strata of hard and soft earth).

have been carried out at all. The road-works under the Local Fund Engineer were however started on that system and were subsequently converted by the Executive Engineer into works on the intermediate piece-work system. The tasked works were at first carried out in accordance with the Madras Famine Code, but the digger, carrier system was ultimately adopted and tasks set in accordance with the tasks prepared by the Chief Engineer and approved by Government in Government Order, Nos. 215, 215-A of 10th March 1900.

The task was $1\frac{1}{4}$ cubic feet of broken metal per head. It was reduced for aged and sick people.

17. Yes. No minimum. There was a minimum at first, not all the time. A rest day allowance was given. No allowance for dependants on road-works. Tank works under the intermediate system paid 1 digger, 2 carriers and 2 dependants. The money equivalent of $4\frac{1}{4}$ seers of grain per day for the labour.

18. No regular relief works were opened. We never got beyond the test stage.

19 to 23. Nil.

24. My replies below refer to our test works.

Baddvel Taluk was much affected. Having no convenient work there, we told people to go 30 or 40 or 50 miles to a tank in an adjoining taluk. They would not go. It is, I think, very difficult for people to go far for a famine wage. A man will go 70 miles for harvesting; that means absence from home for 3 weeks, a full stomach while away and a return home with a good bag of grain for his family. A whole family—old, sick, and young as well as strong cannot go to a famine work; the strong working man can there earn only a little more than enough for himself and his family at home will starve, while his cattle and other property will all come to grief. On regular famine works when gratuitous relief is given to dependants at home, a working man may no doubt go a long way. We only had half famine.

25. Yes. In practice the Engineer and I simply discussed and agreed and things were done.

26. An Overseer was in charge of each Public Works Department work under his ordinary divisional officer.

27. The Overseer under the divisional officer, Public Works Department, decided questions of hard and soft earth, &c.

Questions.

Answers.

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

(a) from the administrative point of view?

(b) from the point of view of economy?

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Code task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

28. On the tasked works, the works were gauged in accordance with the Madras Famine Code and subsequent modifications with respect to diggers and carriers, the numbers in each gang being kept as near to 100 as possible. At the same time, workers from the same village were kept together. On the intermediate piece-works the gangs were purely family or village gangs primarily self-formed with no specific limit as to the size laid down. It was found expedient, however, not to have more than 30 or less than 15, the main objection to larger gangs being the liability to disputes in distributing the earnings.

29. The classification of workers has been described in the answers to questions 16 and 28. The wage scale finally adopted is laid down in Board's Proceedings No. 380 of 13th August 1900. Both the classification and the wage scale adopted were practically in conformity with the recommendations of Famine Commission of 1898. So little work was done on task work however that I have had no occasion to go into the question of departure from the recommendations.

30. The question did not arise under the intermediate system.

31. Task work was not carried out for long by the Public Works Department, in fact, the Board of Revenue did not intend task work to have been carried out at all. The road-works under the Local Fund Engineer were however started on that system and were subsequently converted by me into works on the intermediate piece-work system. One of the two road-works, which were practically two sections of one work, was later on reconverted into tasked work in order to compare the two systems, side by side. All the irrigation works started by the Public Works Department were carried out on the intermediate piece-work system from the outset.

The tasked works were, at first, carried out in accordance with the Madras Famine Code, but the digger-carrier system was ultimately adopted and tasks set in accordance with the tasks prepared by the Chief Engineer and approved by Government in Government Orders, Nos. 215, 215-A of 10th March 1900.

The two systems were carried out simultaneously on the two road-works towards the end of the operations and when they were both nearing completion. The experiment could not be continued long enough for any useful deductions to be made.

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief

32. I cannot say as we had no severe famine. We paid by results very satisfactorily in our half famine. I think the system should work in a severe famine if begun in time. People demanded minimum wages and would not work

Questions.

Answers.

can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

in some cases. We, however, only paid for what they did. Hence they left the work. They did not die! So obviously had some means of living. The 1896-97 famine pauperised the people. The Executive Engineer says: "I do not agree with the Famine Commission here. I consider that, if started in time, relief can be adequately afforded in all stages of distress by means of the unrestricted piece-work system as was carried out in this district but with a more liberal estimate of the constitution of the typical family, on which the rates are based, and with rates adapted to the capacities of three broad classes of workers, viz.: (1) professionals, (2) efficient non-professionals and (3) weakly non-professionals, combined with separate relief—gratuitous or otherwise—for those who have no one to support them. Please see my report on the late famine operations embodied in Board's Proceedings, No. 523, dated 20th November 1900, in which the question is discussed at length."

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

33. Full task exacted from the outset; no distant allowance; tasks were slightly relaxed for all classes during the great heat.

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the Banias on the works? Please give reasons for your opinion.

34. On the tasked works, the scale was rather low in the absence of rest day and distant allowances. On the intermediate piece-works, the rate of earnings provided for was ample so long as no limit was enforced. If the latter is enforced the typical family on which the rates are based should include more dependants.

I noticed no abnormal deterioration in the condition of the workers and I have no information as regards savings.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

35. On the tasked works no rest day allowance was given, nor could the workers earn more than the full wage. On the intermediate piece-work works a rest day allowance was included in the rate. I consider it preferable to allow workers to provide for themselves by increased energy.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

36. I would not have a minimum wage. I would pay for work done. The minimum wage ruins the people.

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it; did the penal wage anywhere become the wage generally earned? if it did, to what do you attribute the fact, and what were its effects?

37. We had no minimum.

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

39. When people first came on a relief work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bania?

38 and 39. Payment was made by—weekly only on both classes of works; no demand was made for more frequent payment.

Questions.

Answers.

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

41. Can you give, for two or three typical relief works, figures showing, at the time of greatest pressure, the number of relief workers earning—

(a) the full wage,

(b) the penal wage,

(c) a wage between the full and penal wage.

Did people remain long on the works on the penal wage?

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task work with a minimum wage, or piece work at favourable rates, and which in your experience is preferable?

44. Were Contractors employed at any stage of the famine?

45. Under the payment by results system were muster rolls kept up, or what arrangement was there by which on emergency the Code task system could be promptly introduced?

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what basis was it based? Were small variations in prices neglected?

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependants, providing tools and plant, marking out work and measuring it up, paying wages, imposing fines, conserving the water-supply, and arranging for hospital requirements.

40. On tasked works to the individual. On intermediate piece-work works to the working head of gang.

These methods I consider the best in each case. In the former, if payments were made to the head man he could not be trusted to distribute them fairly. In the latter, no muster-rolls were kept, so the individual could not be dealt with. The headmen moreover in the latter case were elected by the workers concerned.

41. Code task work was carried on such a small scale and for so short a time that it is not worth while discussing these points in detail.

42. Piece work on the intermediate system was the feature of the operations in this district. Except during a short period at the end of the operations, piece work was of the unrestricted variety described in paragraph 211-D of the Famine Commissioner's report of 1898.

43. The maximum grain wage on which the rates were based was 4 75 imperial seers per digger, each digger having to support one carrier (woman), one adult dependant and one non-working child. No separate relief was given to children or weakly workers since the digger was supposed to be able to support such members of his family himself from his earnings. If separate relief is necessary, I should effect it by means of more favourable rates for weakly workers as described in the answer to question 32. If, however, the limit be removed and a second carrier and a second non-working child included in the typical family gang there should be no necessity for separate relief except in the case of waifs—women and children with no men to work for them. These I should feed gratuitously in kitchens as they would only be a nuisance on the work.

44. No.

45. No. Not only do I see no necessity for such a procedure, but one of the essential features of the system is that the workers are free agents and the gangs self-formed.

46. Under the Collector's orders. Ohlum was the grain and small variations in price were neglected.

47. Please see my remarks against question 41. The arrangements on the intermediate piece-work works were of the simplest nature and differed very little from those that would be made on ordinary works carried out by petty piece-workers wherein lies the great advantage of the system.

Questions.

48. Under whose orders were tasks and wages stiffened or relaxed, (*i.e.*, the Collector, the Commissioner, the Famine Commissioner or the Local Government)? Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority. If he acted in anticipation of sanction was he often over-ruled.

49 and 50. " " " "

51. Were arrangements made at any time to draft people from large public to small village works; what was the occasion calling for transfer; and with what success was the transfer achieved?

SMALL VILLAGE WORKS.

52 to 58. " " " "

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

SPECIAL RELIEF.

60 to 62. " " " "

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

65. If special relief measures for artisans were taken, were they successful from the point of view of (*a*) relief, (*b*) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68 to 81. " " " "

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (*a*) suspended, (*b*) remitted?

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

Answers.

48. Collector's.

49 and 50. *Nil*.

51. No.

52 to 58. *Nil*.

59. Small village works are valuable in half famines or the early stage of big ones. In the middle of a big one supervision would become impossible.

60 to 62. *Nil*.

63. Yes. Weavers.

64. Yes. The big loom weavers cannot do field work. Small loom weavers who are commonly Pariahs can do field work.

65. The works were successful. They gave relief which was essential and only cost a trifle, as we sold the woven products fairly well.

66. Only throwing open reserves and allowing free collection of hill grass, cattle mortality was not noticeable.

67. *Nil*.

68 to 81. *Nil*.

82. Wet remissions were large under the usual rules—

(*a*) Suspensions amounted to Rs. 72,045 and (*b*) dry remissions to Rs. 63,156.

83. We gave these remissions in reference to the repeated failure of dry crops. Dry assessment allows one-fifth to the cultivator to cover vicissitudes of season, *i.e.*, one year in five may be bad and he may still fairly pay his full kist. But if instead of one year in five being bad, we find only one year in five is good, it is obvious that our assessment cannot be collected. The district has suffered since 1896 from short crops. We remitted therefore wherever a failure this year followed a failure last year. We suspended when the failure was great this year but *nil* or insignificant last year.

Questions.

Answers.

81. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

The capacity of individuals to pay was not considered. It does not enter into the system above described, nor I think with justice.

84. After collections began. This could not be helped, but such delay leads to village officers collecting and stealing money.

85. *Nil.*

86. Much land has been recently brought to sale. Perhaps suspensions and remissions might have been more liberal. But this year also is a famine year. If those lands yielded well this year the arrears would have been paid. Many sales are, I think, being cancelled and much further remission of arrears is again necessary.

GENERAL.

87 and 88.

87 and 88. *Nil.*

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

89. Coolies and small ryots.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. They are very ready to live on minimum wage relief. They are not over-ready to work. 1896-1897 famine pauperised them. 1,500 people came to one work three days after it opened. Finding they had to work and got no minimum wage they all left and would not come back. These 1,500 people were able really to live in some other way.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. Private credit was contracted. People found difficulty in borrowing money. Though willing and anxious to be paid one anna a day for doing nothing, they preferred to exhaust their own resources to working at Famine works.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. Yes. If we have no minimum wage.

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

93. No.

94. What system of registration of births and deaths is followed?

94. Village officers register births and deaths daily in the registers maintained by them.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. None.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96. No.

Questions.

Answers.

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

97.—*Nil.*

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

98. No.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. Devadari leaves and aloe roots were largely eaten. They are eaten every year by the poor in such seasons. Devadari, I believe, sustains but does not strengthen. Aloe roots burn the inside as they say. Some folk looked bad, but there was no very obvious deterioration in health.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

100. No.

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

101. *Nil.*

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. *Nil.*

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. No.

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. No.

104-A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104-A.—*Nil.*

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No. Not this year. I heard of them in 1896-1897.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

106. No.

- (a) an increase of double cropping;
- (b) the substitution of food crops for more valuable crops or *rice versé*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. Yes. I don't think cash is generally substituted for grain. If a man has no grain he will pay cash and cash wages have not risen with prices because the demand for the work on the part of coolies keeps them down.

Questions.

Answers.

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

108. None.

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

109. No.

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

110. No.

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (e.g., a change from Code task to payment-by-results system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

111 and 112. My famine was not big enough to make my remarks valuable. A high task and low wage of course drive people away. People would not go long distances. They would go ten miles or so—some from a distance like that camped under trees on road-work. I do not think that people can be massed on large works unless gratuitous relief is also given near their homes, simply because a man who has a feeble wife, three young children, an aunt and an old mother as well as two cows and three goats at home will rather die with them at home than go away and work hard for a small wage fifty miles off, knowing that they are dying when he has left them.

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

CUDDAPAH COLLECTOR'S OFFICE,
DATED 11TH MARCH 1901.

(Signed) H. O. D. HARDING,
Acting Collector.

ANSWERS TO THE FAMINE COMMISSION'S QUESTIONS—BY J. J. COTTON, Esq.,
LATE SUB-COLLECTOR OF CUDDAPAH, MADRAS.

Questions.

Answers.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

No useful rain fell until the first week of September. Only local and partial showers fell in portions of the sub division during June, July and August. In this division the season for ploughing and cultivating dry lands begins with June and ends generally about July, but often sowings run into August. July and August are also the months for putting in the wet crop called "Kartikam." In 1899 as there had been insufficiency of rain for both dry and wet sowings, large areas were left waste, and, where crop had matured with the aid of the showers that had fallen, it withered. The figures below indicate the extent of deficiency in the areas brought under cultivation up to the end of August:—

Question.

Answers.

Taluk.	Up to August 1899.	Average.
Madanapallo ...	27,430	46,821
Vayalpad ...	41,216	61,839
Ráyachóti ...	39,586	77,815
Kadiri ...	29,083	74,438

This was the outlook when the rains of 1899 commenced. As regards the character of the preceding harvests, I cannot do better than quote from the report of the Collector (Mr. Harding) to the Board of Revenue. The Famine Commission desires information for only two years, but the Collector's remarks explain how the sub-division taluks or at any rate portions of them have not fared at all well since the famine of 1891-92. After quoting from the jamabandi reports of the past eight years, the Collector observes—

"The above remarks show that the condition of the sub-division taluks as a whole was by no means prosperous during the past eight years, but that, on the other hand, it was bad in two years, and ranged from indifferent to normal in the remaining six years. The tract of country in the centre of the division, which is now affected, suffered more or less in almost all the years, and the present failure of crops coming after a series of indifferent or bad years renders it necessary to provide State employment to the poorer classes."

2. Were the *kharif* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. Statistics of *kharif* sowings [which I understand to be synonymous with our word "Kartikam"] separately are not available.

As stated above, rain extending throughout the division fell in the month of September. But this was not followed up by good showers during the north-east monsoon. Some rain came at the end of October, but this was neither copious nor general. Wet crops of the Vaisakham season could not be grown extensively. On many wet lands, dry crops were planted, while on dry lands inferior dry crops, such as horsegram and pulses, were substituted for the staple cereals. The cultivation statistics in December do not show any appreciable decrease when compared with the average, but due allowance must be made for the inferior crops put in place of the staple paddy, ragi and cumbu. Two statements are given below which show the areas cropped up to the end of December and the extent to which the chief crops made way for less important ones. The averages given are those of the five or ten years preceding:—

TABLE I.—Entire area under cultivation, both dry and wet, up to the end of December as contrasted with the average of the last five years.

Taluk.	Dry.		Wet.	
	Past five years.	1899.	Past five years.	1899.
	ACS.	ACS.	ACS.	ACS.
Madanapallo	126,690	130,646	15,233	15,477
Vayalpad	91,914	100,540	12,388	11,613
Ráyachóti	117,482	107,305	14,556	12,296
Kadiri	173,725	169,049	10,679	11,820

* Ten years.

TABLE II—Area under each variety of crop compared with 1898 (fasli 1308).

Taluk.	Paddy.		Ragi.		Cumbu.		Horsegram.	
	1308.	1309.	1308.	1309.	1308.	1309.	1308.	1309.
	2	3	4	5	6	7	8	9
1								
	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Madanapalle	11,894	2,006	37,741	36,706	42,243	35,719	22,030	29,761
Vayalpad	18,016	4,088	11,869	14,010	69,792	64,716	8,420	9,324
Ráyachóti	15,290	6,393	3,807	4,525	79,271	56,855	8,948	15,404
Kadiri	6,327	980	14,410	13,126	54,157	37,641	..	45,352

Taluk.	Oil seeds.		Pulses, &c.		Cholam.	
	1308.	1309.	1308.	1309.	1308.	1309.
	10	11	12	13.	14	15
	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Madanapalle	13,177	13,290	16,484	Not furnished.	3,954	Not furnished.
Vayalpad	4,742	5,609	2,046	918	3,481	1,066
Ráyachóti	11,686	21,395	8,389	5,263	4,729	5,320
Kadiri	28,781	29,477	* 97,182	32,566	13,318	8,597

* This includes horsegram.

Questions.

Answers

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. Numbers (a), (b) and (d) are answered in the statement below:—

Taluk.	June 1899.	Average.	July 1899.	Average.	August 1899.	Average.	September 1899.	Average.	October 1899.	Average.	November 1899.	Average.	December 1899.	Average.
Madanapalle ..	ACS. 0.33	ACS. 2.26	ACS. Nil.	ACS. 1.94	ACS. 0.66	ACS. 3.30	ACS. 8.02	ACS. 4.73	ACS. 7.06	ACS. 6.06	ACS. 0.24	ACS. 3.87	ACS. 0.19	ACS. 1.07
	[South-west monsoon.]								[North-east monsoon.]					
	Total ..		9.01.		Average ..		12.23.		Total ..		7.49.		Average .. 11.00.	
Vayalpad	0.84	1.86	1.17	2.10	0.40	3.36	10.15	4.81	8.42	5.85	0.60	3.79	0.16	1.13
	Total ..		12.68.		Average ..		12.13.		Total ..		9.18.		Average .. 10.77.	
Ráyachóti ..	0.70	2.26	0.60	1.89	1.65	3.96	10.98	5.43	4.10	4.85	0.33	3.61	Nil.	0.89
	Total ..		13.93.		Average ..		13.54.		Total ..		4.43.		Average .. 9.85.	
Kadiri	0.60	2.37	0.03	2.45	0.78	4.29	3.96	5.17	3.73	5.48	0.03	2.34	Nil.	0.44
	Total ..		5.37.		Average ..		14.28.		Total ..		3.76.		Average .. 8.26.	

Questions.

Answers.

Number (c) South-west monsoon; middle of September.

North-east monsoon; early in November.

Questions.

Answers.

4. What percentage of a normal harvest on a normal cultivated area did the actual *khari* harvest of 1899 represent?

4. Taking 12 annas as representing an average crop, the harvests in the several taluks are as under. Information is not available as to the normal harvest on a normal cultivated area.

In Vayalpad.—Six northern villages with an extent of 677 acres yielded less than a 4-anna crop. The rest of the taluk had an outturn ranging from 4 to 12 annas under dry and 6 to 12 annas under wet.

In Rayachoti.—Paddy, ragi and cholam from 4 to 12 annas, cumbu *nil* to 12 annas.

In Madanapalle.—Ragi under wells yielded from 6 to 8 annas harvest, early cumbu 8 to 10, unirrigated ragi and cumbu 3 to 6 annas.

In Kadiri.—Early cumbu, korra and tsama yielded from 4 to 12 annas; and late-sown, 4 annas to *nil*.

Taking all four taluks together, late-sown cumbu, horsegram and castors yielded next to nothing.

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
- (b) as labourers?

5. (a) *Petty cultivators, i.e., those paying under Rs. 10 to Government*—

Madanapalle 27·49, Vayalpad 34·31, Rayachoti 44·40, Kadiri 35·36 [derived from comparing the percentage tables of agricultural landholders and of pattadars paying Rs. 10 and under, in Mr. Benson's Statistical Atlas pages 171–72].

(b) *Agricultural labourers*—

Madanapalle.	22·1	} [Taken from Mr. Benson's Statistical Atlas.]
Vayalpad ...	16·4	
Rayachoti ...	12·5	
Kadiri ...	14·6	

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. It was assumed from failure of crops, contraction of field labour and the rise of prices. Test-works were then opened, and continued throughout under that title from February 5th till August 12th.

Regular relief works so called were not opened at all.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. The situation at the end of December stood thus:

- (1) Early-sown cumbu yielding poorly.
- (2) Late-sown cumbu (*i.e.*, the crop sown in August and September), horse gram and pulses almost a failure.
- (3) Wet sowings and cultivation of cereals considerably below normal.
- (4) Prices rising to and above scarcity rates.
- (5) Insufficiency of labour for the poorer classes.

All or most of these conditions existed in an acute state in the Kadiri taluk and the Tahsildar reported that he noticed people everywhere clamouring for work. I inspected that taluk to verify the Tahsildar's statement and found an universal outcry for labour. The poorer classes were living largely on devadari leaves and berries. I thereupon recommended the opening of a test work.

Questions

Answers.

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor-houses.
- (c) Kitchens { (i) on works.
(ii) elsewhere.
- (d) Organization of private charity especially in towns.
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, to what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

8. The test-work first opened was the repair of the road over a ghat between Kadiri and Pulivendla taluks. Tasks set by the Engineering department and approved by the Collector were enforced strictly.

9. (a) Yes. The test-work was a District Board work.

(b) No, so far as I am aware.

10. Large Public Works Department works and road works. The only small works of any importance included in the programme were the ordinary minor irrigation works, of which there are many in the sub-division.

11. (a) Test-works were all that were in progress throughout the period of distress.

(b) None were opened.

(c) Do.

(d) The only organization of importance was the distribution of relief from the Indian Famine Charitable Relief Fund.

(e) This was done in the hot weather, but it was noticed that owing to scarcity of water in the forests, the concession could not be utilized to any great extent.

12. (a) Village relief was not started.

(b) No particular steps were taken.

(c) Inviting subscriptions for the Indian Famine Charitable Relief Fund was the only step of any importance towards organising local charity.

(d) The machinery available in the Presidency has already been declared by the Agricultural Conference to be sufficient for bringing to notice any variation in the state of the people.

13. Loans were applied for on a very limited scale. In Madanapalle Rs. 722½; in Vayalpad Rs. 915; in Rayachoti Rs. 2,580; in Kadiri Rs. 265. The conditions were those prescribed in the rules under the Land Improvement and Agriculturists' Loans Acts XIX of 1883 and XII of 1884 respectively. These loans were not restricted to particular classes. Any person could have the advance, provided his case satisfied the rules. The loans were recoverable in easy instalments as prescribed. During the 1891-92 famine, in the sub-division taluks about six lakhs were spent on loans, chiefly under the head of "well" loans. Those operations were no doubt stimulated by the subsequent award of Rao Bahadurships to two of the Tahsildars concerned. During the year, 1900, however, loans were applied for and granted to an extent of Rs. 4,000 only. The real reason for the people's disinclination is to be found in the strict formalities involved and in the tendency of officers against loans as they were afraid of their personal responsibility. The effect of the extensive loan award in 1891-92 had been that the monies lent were recovered with great rigour and in some cases this led to the

Questions.

Answers.

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under district or Local Boards? and under whose supervision were they conducted?

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

Révenue Inspectors and Tahsildars having to make good deficiencies from their own pockets, and to their being suspended or reduced.

14. Wells are the great feature of the sub-division and are in fact its salvation. No details regarding average depth are available—but it may be said that the water-level in wells ran very low, especially during the hot weather months of the distress. Loans were offered, but were not applied for to any large scale. Wherever they were taken advantage of, they proved eminently successful in all the directions (a), (b) and (c). As observed before, wells play a very important part in this sub-division. Where tank-supply failed, the crop was supported by wells. The irrigation sources being precarious, sugarcane and such like double crops are planted only where well-irrigation is available to supplement the tank supply.

15. District Board work. It was originally under the supervision of the District Board Engineer, and afterwards the management was transferred to the Department of Public Works.

16. Tasks under the intermediate piece-work system were exacted in accordance with the table fixed by the Department of Public Works Engineer. They were subsequently modified under the orders of the Board and Government from time to time, but the above rates (which will be found in the answers of the Collector of Cuddapah) were in force for most of the time the intermediate piece-work system was tried. The Kurli ghaut work was originally carried out on the task-work system. After some time the intermediate piece-work system was introduced. The following tasks were exacted under the task-work system when the work was commenced, but the tasks were altered from time to time to suit the varying conditions.

Task per unit, B. Class 1-25 c. ft. hard stone.
Do. do. 1-75 „ medium „

Under the task-work system tasks varied with sexes, but not with reference to previous occupation. Under the piece-work system the instructions issued by Government provide for the classification of the relief workers (men, women and working children) according to their capacities. Even when placed in the same class with men, *i.e.*, in the digger class, women are prescribed a lighter task.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

17. Yes. No allowance to dependants was given. There were several deserving cases where provision for dependants seemed necessary, the wage allowed for the working member being insufficient to meet the demands of the persons depending upon him. Under the intermediate piece-work system the wage was sufficient generally to sustain the family of the worker.

Under the task-work system the wage of the class in which the gang was placed was the maximum allowed. The intermediate piece-work system first introduced prescribed no maximum, but provided for a reduction of

Questions.

Answers.

18. What circumstances induced the conversion of test works into regular relief works.

20 per cent. in the wages of the professional Waddars to prevent them from earning unlimited wages. Afterwards, this reduction in the case of professionals was abolished and payments were made strictly in accordance with results, but a maximum earning task was prescribed and any work done over and above that was not paid for.

Rest day allowance was given, on the task work system.

18. The test works were not converted into regular relief works.

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened? large public works or small village works?

19. There were no regular relief works. But even as test work, the work started was a large Public Work.

20. Under whose control were these works? Had the scale of supervising establishment been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? Were tools and plant available?

20. The Department of Public Works. The Public Works Department generally utilized the services of the existing staff, the ordinary Public Works Department works having been stopped, while relief operations were in progress. There was some delay in getting tools at the outset. This was due to the Local Fund Engineer. But when the work was in the hands of the Public Works Department, there were no complaints.

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? and, if so, what steps were taken to relieve the pressure?

21. The four sub-division taluks were placed in charge of an Assistant Engineer and each work was supervised by an Overseer. The relief operations were on the whole on a limited scale. Hence no pressure was felt.

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for hutting or sheltering the people; for conservancy or sanitation; for water-supply; for food-supply; and for medical conveniences and supervision?

22. Yes. Particulars of the establishment entertained will be given by the Public Works Department; but generally there was one Overseer or Sub-overseer with a maistry or clerk for each work. Under the task-work system there were also maistries and head coolies for each gang. No hutting accommodation was provided. The relief works were not far from a market. Hence no special arrangement was needed to provide for food supply. There were cases of small-pox on one of the works and then a Hospital Assistant was sent. At other times no extra medical aid was supplied nor owing to the small number attending the works was want of it felt.

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (e.g., by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

23. Yes. No.

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

24. I have no experience of such large works. Labourers to the works came generally from the adjoining villages within a distance of 5 or 7 miles, but there were cases especially in the later stage when people came from a distance of 15 to 18 miles.

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not, please specify the matters in which they were independent.

25. Yes.

Questions.

Answers.

26. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 426 of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable (*e.g.*, in varying strata of hard and soft earth)?

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to secure village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

(a) from the administrative point of view?

(b) from the point of view of economy?

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Code task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

26. There was no special Civil officer. The Tahsildar attended to the want.

27. No such cases were noticed. The Executive Engineer himself suggested alterations which were submitted for the sanction of the Collector.

28. Under the task-work system, gangs consisted generally of men of the same or adjoining villages. Members of the same family were kept together as far as possible. The average size of a gang was from 80 to 100. Under the intermediate piece-work system, the workers formed themselves into small parties.

29. Under the task-work system the wage of the class was given which varied with prevailing prices. The rate adopted under the intermediate piece-work system is that specified in the two tables referred to in question 16 above.

(a)

(b)

30. The table of rates as last modified had not sufficient trial. I am not able to offer any suggestion.

31. The task-work system was first employed on the Kurli Ghaut road. This work was carried out in two places. At a late stage, it was ordered that in one part of the work, the intermediate piece-work system should be tried while the other should be worked as usual on the task-work system. The order, however, having been issued late, had not sufficient trial. The Talapula project was done from the outset on the intermediate piece-work system.

(a)

(b)

32. There was no acute famine in the division. It is best described by the phrase "Half famine."

Questions.

Answers.

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the Banias on the works? Please give reasons for your opinion.

35. Was a rest-day wage given, or could the workers earn more than the full wage in order to support themselves on the rest-day? Which method does your experience lead you to prefer?

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it? Did the penal wage anywhere become the wage generally earned? If it did, to what do you attribute the fact, and what were its effects?

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

39. When people first came on a relief-work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bania?

40. To whom was payment made—to the individual or to the head of the gang? Which method did your experience lead you to prefer?

41. Can you give, for two or three typical relief-works, figures showing, at the time of greatest pressure, the number of relief-workers earning—

(a) the full wage,

(b) the penal wage,

(c) a wage between the full and penal wage.

Did people remain long on the works on the penal wage.

33. As stated above, the work on the outset was carried out on the task-work system. The workers were all placed in the B class which suited them. No allowance was made for distances. The subsequent changes were in the direction of severity. This was done with a view to test the existence of distress.

34. The wage will be adequate provided it is fully earned. At the commencement of the Kurli work, some of the workers could not get the full wage of the class, being unaccustomed to such hard work; and in the hot months they looked rather thin and underfed. I am confident that no relief-workers saved anything out of their wages.

Copper coin was freely accepted by the merchants.

35. Rest-day wage was not given under the intermediate system. The rates paid were intended to include such allowance. A man with a large family cannot, however, earn on the relief work more than is necessary for maintaining himself and family, and cannot therefore be expected to save anything for the non-working day. This is especially the case when an earning maximum is prescribed. Rest-day allowance seems to be necessary, at least when the work is no longer carried on under test conditions.

36. I do not consider the minimum wage at all too high. The penal wage on *relief-works* (as distinguished from *test-works*) being restricted to cases of continual and deliberate refusal to do the allotted task, need not be enhanced.

37. No. On test-works payments were strictly by results, though the earnings might fall to the penal wage. The wage earned was not as a rule the penal wage but sometimes it amounted to that. This is attributable to the relief-workers themselves and to the absence of any relaxations with a view to enforce the tasks strictly, the work being a test-work.

38. Twice a week at Kurli; but on Talapul work once a week so as to suit the weekly market day. No complaints.

39. First daily and afterwards twice in a week; bi-weekly payments were not regarded as inconvenient.

40. *Task-work system*—to the individual.
Intermediate piece-work system—to the head of the gang.

41. Figures not available.

Questions.

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

43. What was the maximum wage, and what arrangements were made for the relief of children or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task-work with a minimum wage, or piece-work at favourable rates, and which in your experience is preferable?

44. Were contractors employed at any stage of the famine?

45. Under the payment by results system were muster rolls kept up, or what arrangement was there by which on emergency the code task system could be promptly introduced?

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependants, providing tools and plant, marking out work and measuring it up, paying wages, imposing fines, conserving the water-supply, and arranging for hospital requirements.

48. Under whose orders were tasks and wages stiffened or relaxed (*i.e.*, the Collector, the Commissioner, the Famine Commissioner or the Local Government?) Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority. If he acted in anticipation of sanction was he often over-ruled.

51. Were arrangements made at any time to draft people from large public; to small village; works; what was the occasion calling for transfer; and with what success was the transfer achieved?

SMALL VILLAGE WORKS.

52 to 59. * * *

SPECIAL RELIEF.

60 to 65. * * *

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

GRATUITOUS RELIEF.

68 to 81. * * *

Answers.

42. Yes. For most of the time the "unlimited" or "unrestricted" piece-work system described in paragraph 211 (D) with reduction of the rates for professionals was in force. Latterly an earning maximum was imposed.

43. As already stated it was the unrestricted piece-work system that was chiefly followed. The maxima prescribed by the Board are—

For sand 210 c. ft. at rates varying with prices.

„ soft earth ... 220 c. ft.

„ Medium earth ... 160 „

„ Hard earth ... 120 „

„ Hard gravel ... 80 „

Working children were admitted to the relief work.

The inefficient, when not many, were distributed among the gangs and where numerous were ordered to be formed into separate gangs.

44. No.

45. Overseer in charge.

46. Tahsildar. Ragi. The table prescribed by the Board does not take notice of trifling variations.

47. These points will be dealt with in the Collector or Executive Engineer's reports.

48. To be answered by the Collector.

51. No small works were in progress.

52 to 59.—Nil.

60 to 65.—Nil.

66. The scarcity for fodder was not very great and mortality among stall-fed cattle was not severe: though it cannot be denied that the animals became emaciated and a proportion died.

67.—Nil.

68 to 81. No such relief was administered.

SUSPENSIONS AND REMISSIONS OF LAND
REVENUE.

82 To what extent was land revenue in your district (a) suspended, (b) remitted?

83 Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zemindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

89 To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent?

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

82 to 86. No suspensions.

The following amounts were remitted:—

	RS	
Madanapalle ...	59,255	This includes fixed remissions for "Lift," the exact amount of which is not known.
Vayalpad ...	22,486	
Rāyachōti ...	22,382	
Kadiri ...	24,783	

These were, however, the ordinary season remissions. Remissions of dry assessment were not granted.

87. The percentage was not exceeded.

88. I think the works should have been converted into regular relief works and that their too long continuance as test-works operated hardly on the workers. This was especially the case in the work carried out under the task work system which leaves, even while the wage is fully earned, no margin for dependants.

89. Pariahs, Kapus, Baliyahs and a few Sugalis. Petty pattadars and tenants were also on relief in a few cases.

90. No.

91. Private credit was no doubt contracted but not to a large extent. The small number who came on State relief and the large numbers also who were found to be stinting themselves and living on berries, leaves and other supplemental foods, show that people only went to the relief work when they could no longer support themselves.

92. Yes.

93.

Questions.

Answers.

94. What system of registration of births and deaths is followed?

94. The ordinary village agency.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

95 and 96. No high mortality.

97. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens;

and were they sufficient? Who supervised them?

97 and 98. *Nil*.

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. Wild products were the chief food of the poorer classes throughout the period of distress and are still being resorted to by some. Complaints were made that these famine foods produced bowel-complaints especially among children.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

100 and 101. No.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

102 and 103. None.

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. *Nil*.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by-rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. No statistics were received in the Divisional office.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. No.

Questions.

Answers.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

- (a) an increase of double cropping;
- (b) the substitution of feed crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is there a tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

111. Please trace with great care the effect upon—

- (1) the number of people seeking relief,
 - (2) the death-rate,
- of any changes in—
- (a) the system of work (e.g., a change from Code task to payment-by-results system),
 - (b) the task,
 - (c) the scale of wages,
 - (d) the mode of calculating fines,
 - (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

106. No. Owing to centennial drought the ryots have taken to the habit of raising dry crops on wet lands.

107. Yes. But in famine times the rate of grain wage is reduced.

108. The Famine Code provisions were modified by the orders issued about tasking and paying under the Intermediate piece works system.

109. Nil.

110. None.

111. When payment by results was introduced on a work previously carried out on the task work system, there was a fall in the number of workers attending. It not being a full famine. The real effect of change of system, etc., cannot be traced.

112. There was a case of rape committed by constables upon a girl working in the Kurli Ghaut.

(Signed) J. J. COTTON,
4th March 1901.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY SYED KADER BATCHA SAHIB, DEPUTY COLLECTOR, JAMMALA-
MADUGU DIVISION, CUDDAPAH DISTRICT.

INTRODUCTORY.

Questions.

Answers.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

The rains of 1899 commenced in September when the outlook was quite gloomy owing to the long continued drought in July and August (ploughing season) which diminished the supply of water in wells and channels. The copious rains of September and the fall of October stimulated the ploughing and sowing of cholam and the other staple food-grains. But the

Questions.

Answers.

subsequent total failure of rain in November and December when the crops were to mature resulted in the entire failure of the crops.

The year 1897 was a continuation of the famine year 1896. 1898 was a year of plenty except in some villages of Pulivendla and Jammalamadugu taluks in which dry remission was given.

2. Were the *kharij* sowings up to normal? If not, what percentage of the normal cultivated area was sown? Please state briefly how the normal cultivated area was arrived at.

2. The staple food-grain is cholam and it is the only crop. The cultivated area was normal.

3. (a) What is the average rainfall of your district during the rainy season? (b) What was the actual rainfall in the rainy season of 1899 and what percentage of the average did it represent? (c) When did the rains cease? and (d) What was the distribution of the rainfall from June to September (both inclusive) compared with the average?

3. (a) The average rainfall of the Division during the rainy season is as follows:—

June to November.

			INCHES.
Jammalamadugu	...	...	18.72
Proddatur	...	...	22.53
Pulivendla	...	...	18.99
Total	...	...	60.24
Average	...	...	20.8

(b) The actual rainfall in 1899 during the above period was—

			INCHES.
Jammalamadugu	...	...	13.39
Proddatur	...	...	12.18
Pulivendla	...	...	12.81
Total	...	...	38.38
Average	...	...	12.79

and its percentage compared with the normal is 58 per cent.

(c) The rains ceased from the 1st November.

(d) The rainfall was distributed as follows from June to September as compared with the average.

	June.		July.		August.		September.	
	Actual.	Average.	Actual	Average.	Actual.	Average.	Actual.	Average.
Jammalamadugu	0.05	2.01	0.03	2.47	3.26	3.93	8.47	4.59
Proddatur	0.37	2.62	0.54	2.93	1.77	5.01	5.86	5.43
Pulivendla	0.48	2.19	0.02	1.34	0.72	3.21	8.67	4.91
Total ..	0.90	6.82	0.59	6.79	5.75	12.15	23.00	14.93

4. What percentage of a normal harvest on a normal cultivated area did the actual *kharij* harvest of 1899 represent?

4. The actual harvest of cholam of 1899 was not more than 20 per cent. of the normal yield on the normal cultivated area.

5. What percentage of the total population of your district depends exclusively on agriculture—

5. Sixty per cent. of the total population of the division depend upon agriculture exclusively.

- (a) as petty cultivators?
(b) as labourers?

- (a) Fifty per cent. as petty cultivators and
(b) Ten per cent. as labourers.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

7. What were the observed facts which led you to think that the machinery of relief should be set in the motion?

8. What particular relief measures did you first undertake? and what tests were applied to gauge the extent of the distress?

9. How were you prepared to meet famine?—
(a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11. In the sequence of relief measures, what place was taken by the following:—

- (a) Test works.
- (b) Poor houses.
- (c) Kitchens { (i) on works.
(ii) elsewhere.
- (d) Organization of private charity, especially in towns.
- (e) Opening the Government forests.

12. What system of local inspection and control was instituted and at what period—

- (a) to arrange for village relief?
- (b) to stimulate the local employment of labour?
- (c) to organise local charity?
- (d) to observe the general condition of the people?

13. Were loans issued at the outset? If so, of what extent, under what Act, under what conditions, to what classes and for what objects? Were they recoverable in whole or in part?

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

- (a) in securing the crop on the ground?
- (b) as a permanent improvement?
- (c) as a temporary measure to employ labour?

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under District or Local Boards? and under whose supervision were they conducted?

6. The failure of crops necessitated relief operations and test works were started. The distress, however, having been confined only to portions of taluks there was no necessity to open regular relief works.

7. There was a general clamour in the affected villages for labour owing to want of work in the fields.

8. Test works were started, five in Pulivendla two in Jammalamadugu and three in Proddatur. To gauge the extent of the distress these were worked on the strict test conditions under the intermediate system.

9. The famine programme being kept correct up to date with estimates, &c., ready, there was no difficulty in selecting the works needed. The works were managed by Public Works Department officers.

10. The relief programme contains both large public works and small village works. The famine programme is being maintained up to date.

11. Test works were opened and Government reserved forests were thrown open for grazing as an initiative measure. There was no necessity for organization of poor houses and kitchens, &c.

12. The local officers—Tahsildar and Divisional officer—were constantly on tour observing the general condition of the people and submitting fortnightly reports.

13. Loans were freely given to the applicants for the sinking and repairing of wells under the revised 5 per cent. rules, and for the construction of protective bunds against streams, &c., under the Land Improvement Loans Act, and for the purchase of bulls under the Agriculturists' Loans Act.

14. Irrigation wells can be sunk in this division in the vicinity of rivers and streams. When the rains ceased in 1899 the average depth below the surface of water was 3 feet. The digging of wells was encouraged by loans and was generally successful (a) in securing the crop on the ground, (b) as a permanent improvement and (c) as a temporary measure to employ labour.

15. One District Board work and a few other irrigation works were executed under the supervision of the Public Works Department.

Questions.

16. What tasks were exacted on test works, and was the same task taken from every one irrespective of sex and previous occupation?

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest day allowance or an allowance to dependants?

18. What circumstances induced the conversion of test works into regular relief works?

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

53. What classes of works did they include?

54. Were they conducted—

(a) under the supervision of the Public Works Department,

(b) under the supervision of the Civil Agency,

(i) by direct management,

(ii) through landholders or by means of other non-official agency?

55. If conducted under (b) (ii) of the last question, what arrangements were made—

(a) for laying down the work,

(b) for measuring it up,

(c) for paying wages?

How far were the landholders and others responsible administratively and financially; and under whose supervision was the work done?

56. Was any attempt made to work the Code task system? What scale of wages was adopted? Was employment given to every one who wanted it, or only to special classes?

57. Was any system of selection of applicants for relief tried? If so, was it successful or not?

58. If large public and small village works existed close to one another, did either draw labourers from the other?

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

Answers.

16. The tasks exacted were sufficiently raised higher than the normal rates so as to prevent professional labourer from being attracted to the works. No difference was observed with reference to sex or previous occupation as the works were strictly on test conditions.

17. The payment was in strict proportion to results. There was no maximum or minimum wage nor rest day or other allowance.

18. Test works were not converted into regular relief works, there having been no necessity for it.

52. Small isolated tank works were opened in different parts to meet the requirements of persons who could not go to distant works.

53. Except the two project works of Peddapasupula and Chapand channel the others were either new tanks or repairs to tanks.

54. They were conducted under the supervision and direct management of the Public Works Department officers.

55. Nil.

56. No attempt was made to work under the Code task system but payments were made on results and employment was given to every one that wanted it. The scale of wages adopted was a modification of the standard wages fixed by the Superintending Engineer.

57. None.

58. None.

59. Small village works are advantageous both to the State and to the people, when distress is not keen, unlike large works which often run the chance of not being completed before the distress abates and which being far away from their home are not suited to the early stages of distress.

60. None.

Questions.

Answers.

61. Were forest and fodder works opened? How were these controlled and what classes did they serve?

61. No.

62. Were able-bodied persons engaged at any time on works of private utility at public expense (*e.g.*, weeding fields, etc.)? and, if so, to what extent, at what stage, for how long and under what control?

62. No.

63. Were special measures taken to relieve artisans (weavers and others) in their own crafts?

63. Weavers were relieved in their own craft at Jammalamadugu centre.

64. Did they show a reluctance to go on ordinary relief works; or were they physically unfit for ordinary labour?

64. They were physically unfit for ordinary labour.

65. If special relief measures for artisans were taken, were they successful from the point of view of (a) relief, (b) economy; and does your experience lead you to consider that more might have been done in this respect, under direct official control or with official assistance?

65. The weavers' relief was successful. The amount spent was almost recouped by sale of the cloths manufactured by them.

66. What measures were taken to prevent mortality of cattle and with what success?

66. The condition of cattle required no relief.

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

67. None.

GRATUITOUS RELIEF.

68 to 81.

68 to 81. No gratuitous relief.

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

82. To what extent was land revenue in your district (a) suspended, (b) remitted?

82. The amount of remission and suspension of revenue on dry lands was as follows:—

		Dry remission.			Suspension of dry assessment.		
		Rs.	A.	P.	Rs.	A.	P.
Jammalamadugu	..	5,417	11	6	8,684	0	0
Proddatur	..	9,336	1	6	1,653	2	0
Pulivendla	..	51,007	4	9	42,707	8	9
Total	..	65,761	1	9	53,044	10	9

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case, how, and by whom and upon whose information was that general capacity determined?

83. The remission and suspension of revenue was chiefly guided by the extent of failure of crops and the need for this kind of relief from the previous crop history of the tract affected and other local circumstances.

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

84. The remission and suspension were determined before the collection of the assessment.

85. In zamindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

85. No zamindaris.

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

86. None of this kind as the remission and suspension were granted before collection of revenue.

Questions.

Answers.

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

87. No.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion?

88. Neither excessive nor defective.

89. To what classes generally did the people in receipt of relief belong; did they include proprietors, State ryots, occupaney tenants, and other tenants with security of tenure, and, if so, to what extent?

89. A small portion of ryots holding lands resorted to the works.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable?

90. The people were not more ready to resort to works than in the former famine of the previous year during which they got minimum wage for no work.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief?

91. There was some contraction of private credit but there was no reluctance of the people to exhaust their own resources before accepting State relief.

92. Do you consider that the tests of the Code are sufficient to prevent persons not in need of relief from seeking it?

92. Yes.

93. If you consider the tests of the Code are insufficient, what further tests would you propose? Or do you consider any method of selection for admission to relief to be practicable?

93. None.

94. What system of registration of births and deaths is followed?

94. The Village Munsifs assisted by the village servants register vital statistics.

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food?

95. No heavy mortality was noticed.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time?

96. None.

97. What special sanitary arrangements were made—

(a) on works;

(b) at poor-houses;

(c) at kitchens;

and were they sufficient? Who supervised them?

97. No need arose for any sanitary measures as there were no famine works.

98. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

98. No grain shops at works.

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

99. People supplemented their food with wild products to a small extent but without any appreciable effect on their health.

100. Did you observe much immigration from Native States? Roughly what proportion did such immigrants bear to the total number relieved?

100. No native states in the division.

101. What was the mortality among these immigrants compared with the mortality of the district; and what was the effect of this mortality upon the death-rate of the district?

101. Nil.

Questions.

Answers.

102. How were the orphans disposed of at the end of the famine? Were they made over to friends, caste people, native institutions or missionaries?

102. No orphans deserted by their parents.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898? Can you suggest any improvements in the management of the fund?

103. The modes of relief narrated in paragraph 527 of the Famine Commissioner's report of 1898 is exhaustive. As already stated in the above paragraphs the famine in the division was neither general nor very serious and was restricted only to certain tracts. Only test works were opened.

104. Did you hear any complaints regarding the inability of the railways to keep pace with the grain and fodder traffic to the distressed districts? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage?

104. *No*.

104A. What arrangements were in force to keep you informed of the traffic in food-grains, by rail, river and road? Were the statistics reliable? What proportion of the assumed consumption of the people was imported?

104A. As only a part of the division was affected no arrangements were needed for securing accurate information about exports and imports.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

105. *No*.

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

106. *No changes.*

(a) an increase of double cropping;

(b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

107. The practice of paying wages in grain still continues in this Division. No tendency to substitute cash wage for it. Cash wage has not risen in sympathy with the rise in prices.

108. To what extent have the provisions of the Famine Code been departed from? Please specify the departures. Were they justified in your experience?

108. *None.*

109. Were Staff Corps officers employed in supervision? And were officers of the Native Army and non-commissioned officers of the British Army employed in minor posts? Can you suggest any other source from which supervising officers can be drawn?

109. *No.*

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

110. *None.*

111. Please trace with great care the effect upon—

111. Death-rate was not heavy in the division.

(1) the number of people seeking relief,
(2) the death-rate,
of any changes in—

(a) the system of work (*e.g.*, a change from Code task to payment-by-results system),

(b) the task,

(c) the scale of wages,

(d) the mode of calculating fines,

Questions.

Answers.

- (e) the tests of necessity (such as the insistence on a distance test, or compulsory residence, or the drafting to distant works),

and did these changes lead to disorganisation or wandering?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

112. Nil.

(Sd.) SYED KADIR BATCHA,
Dy. Collr., Jammalamadugu division.
28-3-01.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY M.R.Ry. S. ADIPPA, MERCHANT, KADIRI, CUDDAPAH DISTRICT.

Questions.

Answers.

INTRODUCTORY.

1. What was the outlook in your district when the rains of 1899 commenced? What had been the character of the harvests in the two preceding years?

2-4.

5. What percentage of the total population of your district depends exclusively on agriculture—

- (a) as petty cultivators?
(b) as labourers?

The answers for the questions are given opposite to the numbers indicating the questions. I have answered such of the questions as are possible and are within my knowledge—

1. There were petty rains in 1899 and at that time, with greatest difficulty in procuring the seed grains the sowing began and the harvests during the two preceding years were unfavourable

2-4.

5. Nearly 90 per cent. depend upon agriculture, of whom 60 per cent. are labourers.

PRELIMINARY ACTION.

6. Was the necessity of relief assumed from the fact of crop failure or was proof of necessity required by compliance with tests?

6. Relief works are not started on the failure of crops but by test-work.

7. What were the observed facts which led you to think that the machinery of relief should be set in motion?

7. Whenever the crops fail relief works should be set in motion.

8-13.

14. Can irrigation wells be made in your district or any portion of it? What was the average depth below the surface of water on the cessation of the rains in 1899? Was the digging of wells encouraged by loans, and, if so, were they successful—

8-13.

14. Generally irrigation wells will be of much use and the water can be had by digging 9 feet deep. Even though the digging of the wells was encouraged to some extent, they were not successfully utilized as a permanent improvement.

- (a) in securing the crop on the ground?
(b) as a permanent improvement?
(c) as a temporary measure to employ labour?

15-23.

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

15-23.

24. Large works of 5,000 persons each can be utilized for irrigation purposes. Persons resort to such work from 40 or 50 miles.

Questions.

25—29.

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31—33.

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the banias on the works? Please give reasons for your opinion.

35.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

37—65

SPECIAL RELIEF.

66. What measures were taken to prevent mortality of cattle and with what success?

67. Were any operations undertaken for the supply of compressed grass to tracts suffering from scarcity of fodder?

68—82

SUSPENSIONS AND REMISSIONS OF LAND REVENUE.

83. Upon what system were such remissions or suspensions based? Were they based upon crop failure solely, or was the general capacity of the individual to pay also taken into account; and in the latter case how, and by whom and upon whose information was that general capacity determined?

84. At what stage were suspensions and remissions determined; after or before collection of revenue began?

85. In zamindari tracts did suspensions or remissions of rent follow automatically upon suspensions and remissions of revenue? If only part of the revenue of a village (or estate) was suspended, who decided what cultivators should receive remissions or suspensions?

86. Did you observe any facts tending to show that sufficient relief by suspension or remission of revenue had not been given, or that such relief had been abused or had failed to reach the right persons?

GENERAL.

87. If the number of persons in receipt of relief in your district at any time exceeded 15 per cent. of the population affected, please state briefly the reason for it.

Answers.

25—29.

30. So far as the classification of the wages is concerned the present proportion may be adopted but provision must be made in case of females with children unable to work. Even in financial aspect it will not entail much additional cost.

31—33.

34. The scale of wages is inadequate. The workers become emaciated in course of six months, for the present wages are not sufficient for half meal even in good seasons, much more so in famine days.

35.

36. The minimum wages can be safely classified as low.

37—65

66. No measures are taken to prevent mortality of cattle, the result being the scarcity of cattle at the end of the famine year.

67. No.

68—82

83. Remissions are based upon failure of crops; but practically the rules for determining the failure of crops are so rigid as to say that even though crops failed no remission is allowed, in other words, if the crops come to half the seed grain laid out it is considered as if the crops have not failed.

84. Suspensions were determined invariably after collections of revenue began.

85. In zamindari tracts suspensions and remissions are left solely to the discretion of the zamindars.

86. It will be of some relief to suspend and they do reach right persons. But it is desirable to suspend or to remit the revenue earlier than the time fixed for the collection.

87. The number of persons in receipt of relief can safely be estimated at more than 20 per cent, because the successive famine years increased the number of relief workers.

Questions.

Answers.

88. Does your experience lead you to consider that relief was at any particular period excessive or defective, and what are the grounds of your opinion ?

88. Relief works are never excessive but defective, for when some reduction in the scale of wages is made persons far away from the spot where the work is done are the first to desert. This indicates that the amount reduced is considered by persons who linger in the work and who live near do not feel the reduction, much so if more camps are started at a near place. Even the deserting coolies to the distant camps will choose to work.

89. To what classes generally did the people in receipt of relief belong ; did they include proprietors, State ryots, occupancy tenants, and other tenants with security of tenure, and, if so, to what extent ?

89. All the classes included in the question generally resort to relief works in the proportion of 10, 30, 35 and 25, respectively.

90. In your experience were people more ready to come on relief than in former famines, and, if so, to what is this readiness attributable ?

90. People more readily resort to famine works now than in former famines and it is attributable solely to the successive famine years and the consequent poverty.

91. Did facts come to your notice indicating a contraction of private credit, or a reluctance of the people to exhaust their own resources before accepting State relief ?

91. People exhaust all their resources however trifling they may be and as last resort have recourse to State relief.

92—94

92—94

95. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable or insufficient food ?

95. So far villages are concerned as for sanitation with regard to water and air they are purer than in towns and the high mortality is attributable to insufficient food only.

96. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply ? Was permanganate of potash used to disinfect wells and other sources of water-supply, and, if so, at what intervals of time ?

96. Invariably in this district the mortality is never attributable to impure water-supply ; but the insufficiency of the same is felt generally and it is no cause for mortality. They are not disinfected.

97, 98

97, 98

99. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health ?

99. Generally in famine years only nearly half the population live upon wild products and it tells heavily upon their health.

100. Did you observe much immigration from Native States ? Roughly what proportion did such immigrants bear to the total number relieved ?

100. So far my experience goes people from this district go to the adjoining Native State (Mysore), but never people come from thence.

101. What was the mortality among these immigrants compared with the mortality of the district ; and what was the effect of this mortality upon the death-rate of the district ?

101. Answer to question 100 suffices.

102.

102.

103. Have you any suggestions to make regarding the classification of the *objects* of the Charitable Relief Fund in paragraph 527 of the report of the Famine Commission of 1898 ? Can you suggest any improvements in the management of the fund ?

103. So far as this district is concerned the fund is better utilized in towns than in villages and it is not possible to suggest improvements at the present state of the village society.

104. Did you hear any complaints regarding the inability of the Railways to keep pace with the grain and fodder traffic to the distressed districts ? If so, please specify the nature of the complaints. Was the local price of food raised by any defects in railway carriage ?

104. Generally the grain traffic is not vigilantly carried on from one place to another. Further it entails some expenditure in addition to the rates provided for the goods by the company ; this additional expenditure goes to the private pockets of some of the railway

Questions.

Answers.

104-A.

105. Did you hear any complaints from employers of private labour, agricultural or other, that owing to the attractions of relief works they experienced difficulty in obtaining labourers?

106. Has there been any change in the character of the crops sown of late years? Has that change taken the form of—

(a) an increase of double cropping;

(b) the substitution of food crops for more valuable crops or *vice versa*?

107. Does the practice of paying wages in grain still prevail in your district? Is there the tendency to substitute a cash for a grain wage? Have cash wages risen in sympathy with the rise in prices?

108, 109.

110. How far was non-official agency made use of during the famine? Was it successful? And is there scope for its extension?

112. Has your experience shown that the massing of people on large works tends to disorganise family life, or to weaken social restraints, or to relax moral ties? If so, can you suggest any means connected with the class or organisation of relief works whereby these evils may be removed or mitigated?

servants and the merchants, consistently to the provisions, cannot but undergo the expenditure according to circumstances which in turn is saddled on the purchasers. As for the fodder traffic it can be said the railway rates are rather high and so they are not generally carried on.

104-A.

105. As people have recourse to relief works as a last resort so there is no complaint by private employers.

106. Of late best lands which can be more usefully utilized for valuable crops are generally used for raising inferior food-grains.

107. It is only in good seasons wages are paid in grains, but not in bad seasons. Cash wages do not rise in sympathy with the rise in prices of grains.

108, 109.

110. Non-official agencies are not made use of during famine.

112. Generally massing people on large works tends to disorganize family life and weakens social restraints and also moral ties. If possible if works which will suit the workers and their caste were undertaken at a place not far off from their home, it will mitigate the said results; and about the moral ties, if the works are so arranged as to be separately allotted to the respective class or families, it will help a good deal in the right direction.

(Signed) S. ADIPPA,

Merchant,

15th March 1901. Kadiri, Cuddapah districts.

REPLIES TO THE QUESTIONS DRAWN UP BY THE FAMINE COMMISSION
BY A. H. MORIN, ESQ., EXECUTIVE ENGINEER, CUDDAPAH DIVISION.

Questions.

Answers.

INTRODUCTORY.

1 to 8.—

1 to 8. Do not concern this Department.

9. How were you prepared to meet famine? — (a) Were lists of relief works ready, had the works on that list been actually located, and had surveys and estimates of cost been made out beforehand? (b) Did the relief programme include scales of establishment necessary to meet any emergency? and were lists of candidates qualified for famine service kept up?

9. (a) As far as concerns the Public Works Department a programme is submitted to the Collector of this district annually, drawn up in accordance with the instructions contained in the Madras Famine Code. All ordinary irrigation works suitable for famine labour are included therein, as well as works intended only for famine relief purposes, the former being eliminated from time to time as they are taken up and executed in the ordinary course. Works for which estimates are not ready or for which investigation has not been carried out are shown as such, the programme showing clearly what works are immediately available and what are not.

Questions.

Answers:

Owing to the long continued short handedness of the department in this district, the number of the latter class of works has always been unduly large, since in ordinary times no time or men can be spared for the thorough investigation of famine projects, and it is only when famine is imminent or actually existent and expenditure on ordinary works is curtailed or stopped that special efforts can be made to hurry on the investigation of such projects.

The result, as might be imagined, is far from satisfactory.

What is wanted to put the famine programme on a sound basis, is a famine project investigation party, organized on the lines of the tank restoration scheme parties. When such a party has investigated and prepared estimates for a fair reserve of works, further works can be added to the programme by the ordinary staff as time and men permit.

It would be found that a very considerable percentage of these projects would be well worth carrying out by ordinary agency either as famine protective or productive works, and in a district like this where, though the rainfall is precarious at the best of times, large quantities of water run to waste during the year, every effort should be made to store as much water as possible, more especially by means of river channels capable of filling tanks within the short duration of floods.

The work of investigation could also be carried out with, perhaps, a gain in economy, but with a loss in method and thoroughness by means of a few special subordinates posted under the existing Sub-divisional officers.

(6) No such systematic lists maintained specially for famine, though a list of applicants for works is maintained in the ordinary course in my office. No outsiders were employed on the supervising staff in the late famine.

10. Did the relief programme contemplate large public works or small village works as the backbone of the relief system? If the former, was a programme of village works ready in reserve from the beginning?

11 to 14.

10. Large public works.

11 to 14. Do not concern me.

15. If labour was the first criterion of the need for relief, what works were first undertaken? Were they ordinary works under District or Local Boards? and under whose supervision were they conducted?

15. Local Funds road works under the control of the Local Fund Board Engineer and irrigation works under the Public Works Department were opened practically simultaneously, the former being handed over to the Public Works Department as soon as we were ready to take them.

16. What tasks were exacted on test works, and was the same task taken from every one, irrespective of sex and previous occupation?

16. Task-work was not carried out for long by the Public Works Department; in fact, the Board of Revenue did not intend task-work to have been carried out at all. The road works under the Local Fund Engineer were, however, started on that system and were subsequently converted by me into works on the intermediate piece-work system. One of the two road works, which were practically two sections of one

Questions.

Answers.

17. Was payment in strict proportion to results? Was there a maximum wage, a minimum wage, a rest-day allowance or an allowance to dependants?

work, was later on reconverted into tasked work in order to compare the two systems side by side. All the irrigation works started by the Public Works Department were carried out on the intermediate piece-work system from the outset.

The tasked works were at first carried out in accordance with the Madras Famine Code, but the "digger-carrier" system was ultimately adopted and tasks set in accordance with the tables prepared by the Chief Engineer and approved by Government in G.O., Nos. 215, 215-A., dated 10th March 1900.

17. On the tasked works the workers were not paid for any excess over the prescribed task, otherwise they were paid as strictly according to result as the Madras Code permits, but with no minimum wage.

The system of payment therein prescribed is by results in a general way but not strictly so, since no intermediate differences less than 10 per cent. in quantities of work done and tenths in payments made are recognized, with the result that a man doing 99 per cent. of the prescribed task gets no more than a man doing only 90 per cent.

On the intermediate piece-work works payments were, until near the close of the operations, strictly according to results with no maximum limit but with reduced rates (20 per cent. less) for gangs of professional diggers, to counterbalance their superior working capacity.

Towards the end of the operations this reduction of rates was done away with and a limit fixed for all efficient workers. This had no material effect other than the fudging of figures by the subordinates to make the work actually turned out tally with the prescribed maximum.

On works carried out on the intermediate piece-work system provision was made in the rates for a rest-day allowance and also for the support of one adult and one child dependant per digger. On the tasked works no allowances were made either for rest day or for dependants. The former were therefore—*ceteris paribus*—the better off.

18. What circumstances induced the conversion of test works into regular relief works?

18. They were never so converted. They remained nominally as "test works" to the end, though, for practical purposes, they were relief works.

LARGE PUBLIC WORKS.

19. When it had been decided to open regular relief works, what works were first opened—large public works or small village works?

19. All the works carried out were large public works.

20. Under whose control were these works? Had the scale of supervising establishment been prescribed in advance, and was that establishment ready? Was there any delay in opening the works? Were tools and plant available?

20 Please see answer to question 15.

No special scale of establishment was prescribed beforehand. The ordinary Public Works Department establishment of the district was first utilized as far as possible, leaving a minimum of men to carry on such ordinary works as could not be stopped, and extra men from other districts were drafted in from time to time as occasion demanded. There was no abnormal delay in opening works, and tools and plant were readily available at two central stores.

Questions.

Answers.

21. Were the works divided into charges, and, if so, for what maximum number of workers did the charge provide? Was that maximum ever exceeded? and, if so, what steps were taken to relieve the pressure?

22. Had each charge its own establishment? If so, please give that establishment in detail. What, if any, arrangements had been prescribed beforehand for hutting or sheltering the people; for conservancy or sanitation; for water-supply; for food supply; and for medical conveniences and supervision?

23. Was admission to the works free to all persons ready to submit to the labour test, or was any system of selection (e.g., by tickets) tried at the commencement? Was a distance test of any kind insisted on and was residence on the works compulsory?

24. On the facts that came to your notice, what is your opinion as to the area or population which a large public work, capable of entertaining two charges of 5,000 persons each, may be expected to serve? What distance from their homes did applicants for relief go?

25. Were officers of the Department of Public Works subordinate to the Civil authorities in all matters? If not, please specify the matters in which they were independent.

The majority of the irrigation works were first put in hand as "expansion of ordinary works" on the intermediate piece-work system, with middlemen for a short time but afterwards without, and their subsequent conversion into test-works proper involved no change other than a slight reduction in rates.

21. Each work was ordinarily a separate charge. One channel work, however, which extended over some 25 miles was divided into three separate charges for the sake of convenience. The attendance, however, not being great, the three charges were subsequently amalgamated into one, the work being concentrated in the centre section.

22. The attendance on all works was never large, only topping 1,000 in one case, and the establishment required for each charge was consequently simple, consisting in each case of a Public Works Department overseer or sub-overseer with a clerk, storekeeper and watchman and one or two maistries according to circumstances.

Police guards also for the cash chest were provided by the Police Department from the reserve. Payments were made by the subordinate in charge.

On the irrigation works no special measures were found necessary with respect to water-supply or sanitation, supply of food or medical attendance, since no workers lived on the work. The department was prepared to afford hutting when required, but there was no demand for it.

On the road works which were in an out-of-the-way situation water-carts were provided and water-supply kept under control.

23. The works were absolutely free to all comers willing to work, with no restriction of any kind except that in the case of the irrigation works, work could not be guaranteed to women coming without a reasonable proportion of their menkind.

No distance test—*quā* test—was contemplated, but on the other hand no concessions were allowed on that account. The department was quite prepared, however, to afford accommodation on the works if required.

24. This is a question for Revenue officials.

25. Nominally, the Executive Engineer and consequently all his subordinates were subordinate to the Collector of the district. The Executive Engineer was the Collector's Famine Assistant and as such all orders relating to famine matters passed through him.

As a matter of fact, the Collector allowed me a very free hand and the friction that occurred during the 1897 famine, due principally to the power of intervention given to the Collector's own subordinates, was entirely absent.

Questions.

Answers.

26. Was there a Civil officer for each charge; from what class was he taken; what salary did he receive; and what was his position with reference to the local representatives of the Public Works Department?

Had the Civil officer in charge full authority to assure himself that measurements were correctly and punctually made, and that the orders of Government were being followed in all the matters mentioned at the end of paragraph 426 of the report of the Famine Commission of 1898?

27. If local conditions were met with, which affected the application of the prescribed tasks, did it rest with the Civil officer in charge to decide which of the prescribed tasks was applicable; (e.g., in varying strata of hard and soft earth).

28. How were the gangs of labourers constituted, and what was the size of the gangs? Were arrangements made to scour village or family gangs, so far as possible, and with what success?

29. What classification of labourers, and what wage scale was adopted, and how does it compare with the classification and wage scale of paragraph 445 of the report of the Famine Commission of 1898? How far did experience justify departure from the latter—

(a) from the administrative point of view?

(b) from the point of view of economy?

30. Did your experience lead you to consider that any, and if so what, distinction should be drawn in the classification and wages of men and women?

Did the absence of such distinction lead to any difficulty?

Please consider this question also in its financial aspect.

31. Was the Code task system introduced from the outset, or was some system of payment by results first adopted? Were the two systems carried on simultaneously or not—

(a) in the same district or sub-division of a district?

(b) on the same work?

It should be added here that the Executive Engineer, his Sub-divisional officers and also several of the subordinates had ordinary work to attend to simultaneously with the famine work and in this were of course subordinate to their departmental superiors only.

26 & 27. No civil officers were attached to the works. If there were, the instance quoted in question 27 would certainly be no concern of theirs. The Public Works Department Sub-divisional officer would be the man to decide in such matters, though the Public Works Department subordinate in charge should be able to do so himself unless his intelligence is below normal.

28. On the tasked works the workers were gauged in accordance with the Madras Famine Code and subsequent modifications with respect to diggers and carriers, the numbers in each gang being kept as near to 100 as possible. At the same time workers from the same village were kept together.

On the intermediate piece-work works the gangs were purely family or village gangs, primarily self-formed, with no specific limit as to size laid down. It was found expedient, however, not to have them more than 30 or less than 15, the main objection to larger gangs being the liability to disputes in distributing the earnings.

29. The classification of workers has been described in the answers to questions 16 and 28. The wage scale finally adopted is laid down in Board's Proceedings, No. 380, dated 13th August 1900. Both the classification and the wage scale adopted were practically in conformity with the recommendations of the Famine Commission of 1898.

So little work was done on task works, however, that I have had no occasion to go into the question of departure from these recommendations.

30. I do not think that there is any practical objection to class II men being paid the same rate of wage as women of the same class. No complaints were heard on the subject on the road works.

On the intermediate piece-work works the question does not arise, but the actual proportions in which the gangs distributed their earnings among themselves was 2:1½:1 to man, woman and child, respectively.

31. Please see my reply to question 16.

The two systems were carried out simultaneously on the two road works towards the end of the operations and when they were both nearing completion. The experiment could not be continued long enough for any useful deductions to be made.

Questions.

Answers.

32. Did your experience lead you to agree with the Famine Commission of 1898 that a system of payment by results was unsuited to conditions of acute distress or actual famine? or do you consider that, if started in time, relief can be adequately afforded in cases of severe famine by works conducted throughout on a system of payment by results?

32. I do not agree with the Famine Commission here. I consider that, if started in time, relief can be adequately afforded in all stages of distress by means of the unrestricted piece-work system as was carried out in this district, but with a more liberal estimate of the constitution of the typical family, on which the rates are based, and with rates adapted to the capacities of three broad classes of workers, viz., (1) professionals (2) efficient non-professionals and (3) weakly non-professionals, combined with separate relief—gratuitous or otherwise—for those who have no one to support them.

Please see my report on the late famine operations embodied in B.P., No. 523, dated 20th November 1900, in which this question is discussed at length.

33. What task was exacted at the outset; was it graduated to the class of workers or was the full task demanded from all; was any allowance made for the distance the workers had come? Were subsequent changes of the task in the direction of greater leniency or greater severity; what were the circumstances which led up to the changes, and with reference to what classes of persons were they introduced?

33. Full task exacted from the outset; no distance allowance; tasks were slightly relaxed for all classes owing to the great heat.

34. Did your experience lead you to believe that the scale of wages adopted was adequate, inadequate, or unduly liberal? What in your experience was its effect upon the condition of the workers? Was there any evidence that the workers saved upon their earnings? Did copper coin return freely to the Banias on the works? Please give reasons for your opinion.

34. On the tasked works the scale was rather low in the absence of rest day and distance allowances. On the intermediate piece-work works the rate of earnings provided for was ample so long as no limit was enforced. If the latter is enforced the typical family on which the rates are based should include more dependants.

I noticed no abnormal deterioration in the condition of the workers and I have no information as regards savings.

35. Was a rest day wage given, or could the workers earn more than the full wage in order to support themselves on the rest day? Which method does your experience lead you to prefer?

35. On the tasked works no rest day allowance was given nor could the workers earn more than the full wage. On the intermediate piece-work works a rest day allowance was included in the rate.

I consider it preferable to allow workers to provide for themselves by increased energy.

36. Does your experience lead you to consider that the minimum wage is too high, and that fining for short work should be continued down to the penal wage or to something between the penal and minimum wage?

36 & 37. Code task work was carried out on such a small scale and for so short a time that it is not worth while discussing these points in detail.

37. Was the minimum wage allowed at the outset; if not, was there a penal wage, and was there a tendency to fine down to it? Did the penal wage anywhere become the wage generally earned? if it did, to what do you attribute the fact, and what were its effects?

38. How often was payment made; daily or weekly or at what other interval? If weekly, did your experience lead you to think more frequent payment desirable and practicable?

38 & 39. Payment was made bi-weekly only, on both classes of works; no demand was made for more frequent payment.

39. When people first came on a relief work were they paid daily or at longer intervals? Did you find that payment otherwise than daily threw the workers seriously into the debt of the Bunia?

40. To whom was payment made? to the individual or to the head of the gang? Which method did your experience lead you to prefer?

40. On tasked works to the individual; on intermediate piece-work works to the working head of gang: These methods I consider the best in each case.

In the former if payment were made to the headman he could not be trusted to distribute it fairly. In the latter no muster rolls were kept, so the individual could not be dealt with. The headmen, moreover, in the latter case were elected by the workers concerned.

41. Can you give, for two or three typical relief works, figures showing, at the time of greatest pressure, the number of relief workers earning—

(a) the full wage,

(b) the penal wage,

(c) a wage between the full and penal wage?

Did people remain long on the works on the penal wage?

41. Please see reply to 36 and 37.

42. If a system of payment by results was in force, was it one of the systems described in paragraphs 208 to 212 of the report of the Famine Commission of 1898, or in what respects did it differ from them?

42. Piece-work on the intermediate system was the feature of the operations in this district and except during a short period at the end of the operations the piece-work was of the unrestricted variety described in paragraph 211 (D) of the Famine Commissioner's report (1898).

Please see my reply to question 32 and my report on the famine operations referred to therein.

43. What was the maximum wage, and what arrangements were made for the relief of children; or for the relief of weakly persons capable of some work? Did the arrangements for the latter take the form of task work with a minimum wage, or piece-work at favourable rates, and which in your experience is preferable?

43. The maximum grain wage on which the rates were based was 4.75 Imperial seers per digger, each digger having to support one carrier (woman), one adult dependant and one non-working child.

No separate relief was given to children or weakly workers since the digger was supposed to be able to support such members of his family himself from his earnings.

If separate relief is necessary I should effect it by means of more favourable rates for weakly workers as described in my reply to 32.

If, however, the limit be removed and a second carrier and a second non-working child included in the typical family gang there should be no necessity for separate relief except in the case of waifs—women and children with no men to work for them. These I should feed gratuitously in kitchens as they would only be a nuisance on the work.

44. Were contractors employed at any stage of the famine?

44. Petty contractors were tried when works were started as "expansion of ordinary works," but were discontinued before they were converted into test-works. I should say their intervention on famine works is both unnecessary and objectionable.

45. Under the payment by results system were muster rolls kept up, or what arrangement was there by which on emergency the codo task system could be promptly introduced?

45. No. Not only do I see no necessity for such a procedure, but one of the essential features of the system is that the workers are free agents and the gangs self-formed.

46. Under whose orders was the prices scale for the calculation of the wages fixed? On what grains was it based? Were small variations in prices neglected?

46. Under the Collector's orders cholam was the grain and small variations in price were neglected.

47. Please trace distinctly the various steps adopted in opening a relief work, admitting and classifying labourers, providing for dependants, providing tools and plant, marking out

47. Please see my remarks against questions 36 and 37. The arrangements on the intermediate piece-work works were of the simplest nature and differed very little from those that

Questions.

work and measuring it up, paying wages, imposing fines, conserving the water-supply, and arranging for hospital requirements.

48. Under whose orders were tasks and wages stiffened or relaxed, *i.e.*, the Collector, the Commissioner, the Famine Commissioner or the Local Government? Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority? If he acted in anticipation of sanction was he often over-ruled?

49. * * *

Answers.

would be made on ordinary works carried out by petty piece-workers—wherein lies the great advantage of the system.

48. Under the orders of the Collector as far as I was concerned. He ordinarily asked my opinion before effecting any change.

49. No such arrangements found necessary.

The remaining questions are not within my province.

MADANAPALLE,
6th March 1901.

(Signed) A. H. MORIN,
Executive Engineer.

Mr. A. Forbes, C.S.I., I.C.S.

Answers by Mr. A. Forbes to the questions of the Famine Commission.

1 to 5. See Deputy Commissioner's replies.

6, 7 and 8. The opinions of the local officers regarding the necessity of relief measures were based

* *Vide* paragraph 4 of my No. 1236F., dated the 20th December 1900, submitting my final Famine Report to Government.

† *Vide* paragraphs 6, 16, 38, 53 of ditto.

‡ *Vide* paragraphs 22, 23 of ditto.

§ *Vide* paragraph 62 of ditto.

¶ For the scale, *vide* columns 1 to 4 of Appendix II, page 26 of ditto.

|| *Vide* paragraph 62 of ditto.

¶ *Vide* paragraph 40 of my final Famine Report.

¶ *Vide* paragraph 40 of my final Famine Report.

¶ *Vide* paragraph 40 of my final Famine Report.

¶ *Vide* paragraph 40 of my final Famine Report.

13. See Deputy Commissioner's reports and paragraphs 7-8 (and other paragraphs noticing monthly importations) of my final Famine Report on the subject of advances to traders to stimulate importations. Regarding loans to agriculturists, *vide* paragraphs 28, 37, 45, 46, 58. The general principle followed was not to grant such loans until the sowing season was at hand, and then to make advances as quickly as possible. The work was done very well in Ranchi, but hung fire in Palamau.

14. See Mr. Streatfeild's reply. In this country irrigation *bundhs* take the place of wells. These were largely constructed both in Ranchi and Palamau (*vide* my final Famine Report).

15. Both roads and irrigation *bundhs* both in Ranchi and Palamau. The Deputy Commissioner of Palamau is not correct in mentioning only road works. A very large number of irrigation *bundhs* were undertaken in the Government khas mahals in his district. Many of these, it is true, would have been undertaken in any case, but not to the same extent. These works in Palamau were at first under the khas mahal tahsildars, but were afterwards placed under the supervision of the District Engineer.

16 and 17. There was no exaction of individual tasks. The system adopted was (1) piece-work on the gang system for the mass supplemented by (2) convalescent gangs for weaklings, and (3) special gangs for dressing and other work requiring skilled labour.

For the rates adopted for (1) *vide* in Appendix II, page 26 of my final Famine Report. For the rules regulating (2) and (3), *vide* paragraph 4, Appendix I, page 26, and Appendices V and VI, pages 29 and 30.

"Dependents" were not recognised as a class, nor was any separate allowance given for dependents. Persons unfit for ordinary piece-work were placed in the "convalescent gangs," and those unfit for work at all were brought up the kitchen or dry dole lists.

18. The decision of this point lay entirely with Government, the rule being that relief work rates could not be introduced in any area unless and until "famine" had been declared by Government within that area. The tendency on the part of Government was to rely too exclusively, in my opinion, on the result of test works, though eventually some weight was allowed to the opinions of the local officers, based on the consideration referred to above (see reply to questions 6, 7 and 8). I observe that Mr. Streatfeild in his reply to question 18 mentions the fact of the people coming to test works in large numbers. This is correct so far as regards areas at a distance from jungles, but the remark does not apply to jungly areas. Thana, mahadand in Palamau is a striking example of this.

19. Mr. Balthasar has misunderstood the meaning of "large public works." The only works

were small works on district roads and irrigation *bundhs*. Mr. Streatfeild's reply is correct.

20 to 26. See Deputy Commissioner's replies.

I do not think that the Deputy Commissioners have quite understood this question. The scale of test rates was prescribed by Government and of relief work rates by the Commissioner within the limit of Mr. Glass's tables. For these respective scales, *vide* Appendix II to my final Famine Report*; the classification of soils rested with the Public Works officers.

* Columns 3 and 4 show the test rates prescribed by Government; columns 5 and 6 show the relief work rates fixed by myself.

28. See Deputy Commissioner's report.

29 to 33. *Vide* my written answers referring to programmes of works and classification of labourers at page 170, Appendix I to Report of Famine Commission, 1898. There was no classification of labourers attempted (besides that noticed in reply to questions 16 and 17 above), and I agree with Mr. Streatfeild that in these districts any classification of the kind suggested in paragraph 445 of the previous Commission's report is quite unnecessary. I am distinctly of opinion that the system of payment-by results is entirely suited to acute famine conditions, provided that the local officers are allowed discretion to take matter in hand in time. The important point is that the population should not be allowed to run down before any effectual relief measures are taken. If the Divisional Commissioner cannot be trusted in this matter, it should, I think, be incumbent on Government to appoint a special officer to remain on tour in the affected tract with power to summarily decide all questions of the kind after personal investigation on the spot.

34. I agree generally with what Mr. Streatfeild has said on the subject.

35. Appendix VIII, page 32, to my final Report.

36. *Vide* Mr. Streatfeild's reply to question 34. Under the piece-work system there should be no fining for short work, the rule that payment is only to be made for a *completed chowka* meeting all requirements.

37 to 41. *Vide* Mr. Streatfeild's replies.

42. *Vide* paragraph 34 of my final Famine Report.

43. For weakly persons and children, the "convalescent gang" system, supplemented by kitchens sufficed. I agree with Mr. Streatfeild's replies.

45. *Vide* Appendix VII, page 31 of my printed Famine Report, for the system I recommended though not with the object of preparing for the Codo task system, the introduction of which was never contemplated.

46. The reply to this question is a reference to Appendix II, page 26 to my final Famine Report. It was left by that circular to the enquiries to regulate the wages according to the rise or fall in the price of rice, though I believe that they usually awaited my orders before changing the scale. The tendency

amongst those officers was, I think, to keep the rate as low as possible, and I had to interfere in several instances and order it to be raised following a rise in the price of rice. The rise was graduated by differences of one seer, not of half seer per rupee, as stated by Mr. Streatfeild.

47. *Vide* Mr. Balthasar's reply. The great point to insist upon is the marking out of the new *chowkas* well in advance—*vide* paragraph 3, Appendix I, page 25 of my final Famine Report.

48. Remained *entirely* in the hands of Government. The test work rates were definitely fixed by Government order No. 546, dated 28th January 1900, and no alterations from those rates was permitted until Government had formally declared an area to be a "famine area". Yes, I once acted in anticipation of sanction, and was overruled—*vide* extracts of paragraph 5 of this office No. 32F., dated 7th April 1900, and of paragraphs 2 and 7, Government order No. 168 T.R., dated 28th idem, annexed.

52 and 53. All the works were of the character of "village works," that is, they were either irrigation *bundhs* or portions of district roads running through the affected tracts, the workers on the different sections coming from the neighbouring villages.

54. The works were all under the Civil officers, *viz.*, in Ranchi under a Special Inspector of local Famine Works (Rai Krishna Chandra Benerjee, Bahadur) and the District Engineer, who both took their orders from the Deputy Commissioner, and in Palamau they were carried out by the khas mahal tahsildars and the District Engineer under the orders of the Deputy Commissioner.

56. No task-work attempted. For scale of wages, *vide* reply to question 46. Everyone who came for work was given it.

57. Persons who were unfit for piece-work were placed in the convalescent gangs, and afterwards, if fit, redrafted to piece-work, or, if necessary, passed on to a kitchen.

58. No persons were drafted from one work to another.

59. *Vide* my replies to former Commissioner's question (under heading "Point 3", pages 169, 170, Volume I, Appendices to Report of Famine Commission, 1898). My further experience confirms me in the views I then expressed.

60 to 67. *Vide* Mr. Streatfeild's replies.

68. As noted before, "dependents" were practically not recognised, seekers for relief who were unfit for piece-work being taken into the "convalescent gangs" or placed in the kitchen lists.

69. Regarding relief at kitchens—*vide* paragraph 62 of my final Famine Report.

70 to 72. See Deputy Commissioner's replies.

73. The Charge Superintendents were instructed to do this.

74. See Deputy Commissioner's replies.

75. For Ranchi, *vide* Mr. Streatfeild's reply. For Palamau, *vide* Appendix III, page 27 of my final Famine Report.

76 and 77. See Deputy Commissioner's reports.

74A. There were no poor-houses properly so called.

75A. The Charge Superintendents assisted by the kitchen muharrirs who kept the daily *hazri*.

76A. and 77A. Dry doles were given to only a very small extent, usually only when there was difficulty in finding persons fitted for the post of kitchen muharrir. In such cases the dole was given out weekly.

78 to 87. *Vide* Deputy Commissioner's replies.

88. As regards the Ranchi district, I am of opinion, from my personal knowledge of the straits to which the people in the more affected tracts were reduced, that relief measures ought to have been started some six weeks earlier than they were. At the same time I admit that the death-rate returns for that district go to show that the omission did not lead to the calamitous results I had anticipated. As regards the Palamau district, however, I fear that the delay until July in opening kitchens on an extensive scale must be held responsible for a share in the increased death-rate. On this subject I beg to refer to the remarks in paragraph 60 of my final Famine Report.

89. See District Officer's reports.

90. I agree with Mr. Streatfeild subject to the qualification in paragraph 62 of my final Famine Report.

91. I think there can be no doubt that the village mahajans were less ready to give loans to the poorer cultivators than usual. I also have no doubt that amongst Hindu cultivators there has been a greater tendency to retain stocks than previous to the famine of three years ago. This was especially observable in the Hazaribagh district. Amongst the Kols, however, and other aborigines in the Ranchi, Palamau and Singhbhum districts, I see no signs yet of any lessening of their spendthrift habits which lead them to home-brew the whole of their surplus stocks of rice and drink it off year by year (*vide* remarks in paragraph 56 of my final Famine Report).

92 and 93. I agree with Mr. Streatfeild. Of course, *if* there is any large work under the Public Works Department accessible, professional coolies should be drafted to it. But if there be no such work available, then I see nothing for it but to allow them on to the smaller civil relief works. There is one point to be remembered with reference to these persons, *viz.*, that though they may make much better earnings in one relief work than ordinary cultivators, yet they have no *other means*, as cultivators often have, to fall back upon (*vide* remarks under heading (b) 4, page 168, Appendix I to former Famine Commission's Report). Also their number in these districts is comparatively

small. However, if it be thought necessary that some discrimination should be made between professionals and non-professionals on small works, then I would suggest that this can best be done by limiting the quantity of work to be done daily by each family gang in the case of professionals. After all, the whole matter is as broad as it is long. Any exceptional arrangement of the kind would only mean extra expense in staff instead of the extra cost going into the workers' pockets. In any case I would certainly deprecate differential rates for professionals and non-professionals on the same work, the only result of which would be wholesale fraud by the work munshis.

'95. *Vide* paragraph 62 of my final Famine Report.

96 to 98. No special arrangements were taken.

99. See paragraph 23 of my final Famine Report.

All enquiries go to show that the population generally of the affected tracts, not only aborigines, but even Muhammadans and Rajputs, were living to a much greater extent than usual on jungle products. There is a consensus of medical opinion that a diet of this kind for a prolonged time, though it may stave off actual starvation, must destroy the digestive powers and injuriously affect the general health of the people. I think that it is to this cause that the great ravages by cholera in all the districts in 1897 and in Palamau in 1900 must chiefly be attributed.

100. No. The Native States of Chota Nagpur were as a fact better off than the adjoining British districts. They had had better crops on the whole with much less facilities for exporting the surplus stocks.

103. No, except that I strongly deprecate the system of free gifts instead of loans to agriculturists. (*vide* paragraph 69 of the late Honourable W. H. Grimley's Report, page 275, Volume II of the Report of the Central Executive Committee, Indian Famine Charitable Relief Fund, 1897).

104 to 112. I agree generally with Mr. Streatfeild's remarks.

Mr. H. C. Streatfield, I.C.S.

*Answers by Mr. H. C. Streatfield to the questions
of the Famine Commission.*

1. Good.

2. Normal. The normal areas under the various crops in this district are based on figures supplied by the police. These are absolutely untrustworthy, but in the absence of a survey, no better figures are obtainable.

3. (a) From 55 to 60 inches.

(b) From two-thirds to three-fourths of the normal.

(c) and (d) Early in September, but the rainfall figures of both August and September were extraordinarily low, being only 7.44 and 2.28 inches against a normal district average of 13.67 and 8.76 inches. The rainfall of June was normal, and of July above the normal.

4. About six-sixteenth or one-third of a normal crop.

5. (a) About five-sixth of the population.

(b) About one-twentieth of the population : landless labourers are very rare in this district.

6. Tests were insisted on, although in my opinion its necessity was a foregone conclusion from the failure of the crops.

7. Food stocks were found by actual house search to be depleted. The condition of the people was falling off, and considerable numbers were attending test-works for extremely small earnings.

8. Test-works on road and tanks were opened in all the worst tracts ; wages were fixed at two-thirds to three-fourths of the Famine Code rates.

9. (a) Lists of works were ready and were under survey by the Public Works Department when the famine broke out. Pending the completion of these surveys, no final estimates of cost were ready. (b) No scale of establishment had been made out, and no lists of candidates were kept up.

10. Under orders, a programme of large works only has been drawn up.

11. First test-works, then organisation of private charity, then as famine was declared, relief works and gratuitous relief by means of kitchens and doles simultaneously. No poor-houses were opened, nor kitchens on the works, nor was the opening of Government forests necessary, since grazing was plentiful throughout.

12. Village relief was not permitted until famine was declared by Government. On famine being declared, Charge Superintendents were appointed for each thana, with three, four or five Circle officers under them, whose duty it was to hold village-to-village enquiries and observe the general condition of the people and arrange for village relief.

Regular inspection as to points (b) and (c) would, in this district, have been useless and unnecessary.

Before famine was declared, Mr. Ward, Assistant Collector, and Mr. Corbett, Assistant District Superintendent of Police, were exclusively employed from February to May on famine enquiries, and several officers were also from time to time deputed from head-quarters to local enquiries in the interior.

13. Yes. Rupees 1,11,941-14 under the Agriculturists' Loans Act (Act XII of 1884) and Rs. 730 under the Land Improvement Loans Act (Act XIX of 1883). The first class to cultivators for the purchase of seed repayable with $6\frac{1}{4}$ per cent. interest on the 31st December 1900; the second class to landholders, repayable in equal half-yearly instalments with $6\frac{1}{4}$ per cent. interest.

14. Only in a few small areas where market gardens exist. In the remainder cultivation is either carried on in terraced rice-fields, where irrigation from wells is impracticable, at any rate without far more enterprise and combination than the people of this district possess. The whole surface of this district is undulating, and the water level is at places on the surface throughout the year; in others, it is never anywhere near the surface. The level was at least six feet lower than usual from August 1899 to June 1900.

No loans were granted to encourage the digging of wells.

15. First, works of improvement in Government and Ward's Estates under the supervision of the District Engineer. From early in March, works were opened in the north-western part of the district under the direct control of Rai Krishna Chandra Banerji, Bahadur, first grade Executive Engineer.

16. The tasks exacted were those prescribed in the tables prepared by Mr. Glass, Chief Engineer, in the famine of 1897. All labourers were paid at piece-work rates based on these tasks, except convalescent and weakly gangs who were paid daily wages for nominal tasks.

17. Piece-work payments were made throughout with no maximum, minimum, rest-day allowance, or allowance for dependants.

18. The fact that people were coming to test-works in large number for a very small daily wage, and that the condition of the people was reported, after careful local enquiries, to be bad and deteriorating.

19. No large public works were ever found possible. The people absolutely refused to go far from their homes. The works were mostly road embankment works, extending over a large stretch of country.

20. Those in the Lohardaga, Bishanpur, Chainpur, Toto, Sisai and Palkot thanas were under the Inspector of Famine Works, Rai Krishna Chandra Banerji, Bahadur; the rest were under the District

Engineer. No scale of establishment had been previously prescribed. There was a little delay in opening some of the more remote works, but nothing really serious. Tools and plant were always available without undue delay.

21. There were no regular charges or maximum number of workers fixed for a charge. An attempt was made to provide a munshi for every 500 labourers, a sub-overseer for every two works, and an upper subordinate over every ten or twelve works; but the establishment was never quite up to this scale.

22. The labourers in all cases went to their homes for the night, so no arrangements, such as those described, were called for.

23. Free to all. The distance test was found quite impracticable here, and compulsory residence on the works would have resulted in the people starving at their homes, rather than come to the works: it was not attempted.

24. Except in a few exceptional cases, which would make no appreciable difference to the general distress. I consider five miles the maximum distance to which people in this district will go to works, however hard up they may be.

25. The Inspector of Famine Works and the District Engineer were subject to me, but they and their subordinates were, till almost the end of the operations, absolutely independent of the local civil relief officers. First, the latter had only the power of reporting on matters connected with works to me direct, without any power of interference; but, latterly, I found it necessary to give them powers to pass orders on all works, officers below the rank of overseer reporting such orders to me for confirmation.

26. The civil and work charges were independent of each other as noted above. Charge Superintendents were appointed for gratuitous relief only, and were of the gazetted officer class. The instructions given these officers as to their powers with regard to works are quoted below—

“All Charge Superintendents are reminded that, with the unlimited piece-work system in force, workers are supposed to earn sufficiently large wages to support both themselves and their families. Dependants of relief-workers should not, therefore, be put on the gratuitous relief or kitchen lists unless the Circle Officer has fully satisfied himself that it is impossible for the working members of the family to earn enough to support them; such cases should be specially marked in Registers 13 and 20, and the Charge Superintendents should carefully check them.

“If in the opinion of any Charge Superintendent the enforcement of the rule regarding non-relief to dependants of workers, as laid down in district Circular No. 1, dated the 12th July 1900, seems likely to be harmful, he is at liberty to suspend its operation, and to refer the matter to me, giving full

reasons for his belief that gratuitous relief for dependants of works is necessary.

“ In several cases which have come to my notice, relief-works have been stopped, or the attendance on them seriously interfered with, by the illness or mismanagement of the muharrirs or subordinates in immediate charge, the superior works officer being too far off to receive immediate news of the break-down and to make immediate arrangements to remedy it. The only means to prevent such break-down on the works is to place authority over the subordinate work establishment in the hands of the Charge Superintendents who are always on the spot. The following orders are accordingly issued in modification of rule 25 of the ‘Instructions to all Charge Superintendents and Circle Officers’ :—

“ I.—Circle Officers shall inspect all works in their circles as often as possible, and report at once to the Charge Superintendent anything they may find wrong. They shall not, however, pass any orders direct on the work establishment.

“ II.—The Charge Superintendent shall pass any orders he may think fit as to the nature of the work to be done, and the classification of soil and other matters *not of a technical nature*, provided that he shall in no case override any orders passed by any officer above the rank of an overseer.

“ III.—If he disagrees with the orders of any officer of higher rank, he shall report the matter to me, and (if the work is under the Inspector’s charge) to the Inspector of Famine Works.

“ IV.—All orders passed by the Charge Superintendents under rule II shall be recorded in the inspection book of the work, and a copy shall at once be sent to the Inspector of Works or the District Engineer. If either of these officers disagrees with the order so passed, the matter should be referred to me.

“ V.—In the case of the break-down of the works establishment on any work, the Charge Superintendent should (in consultation, if possible, with the upper subordinate in charge of the work) make arrangements for carrying on the work until the works establishment can be reinforced. If necessary, the work should be placed in the direct charge of one of the Circle Officers.

“ VI.—Charge Superintendents are authorized, in cases of emergency, to advance money to the works establishment for the payment of labourers, recovering this from the next allotment of funds received by the works establishment.

“ VII.—I look to all Charge Superintendents to use the powers thus conferred on them with tact and discretion, so as to avoid, as far as possible, any friction between them and the works officers ? ”

27. No. No variations from prescribed rates were permitted without the orders of the Commissioner. The classification of soils rested with the works officers.

28. Gangs were not, as a rule, employed. In the Lohardaga subdivision, towards the end of the operations, Mr. Tice, the Officer in charge of works, succeeded in successfully working village gangs of from 40 to 50 members; but usually the people of this district will work only in family groups, and any attempt to form arbitrary gangs leads to suspicion and discontent and retirement from the works, and, without very careful supervision, the system will not work successfully.

29. No classification was attempted; it would have been utterly impracticable here.

30. I do not think any such distinction should be drawn, except that I am strongly of opinion that a maximum should be fixed for the daily earnings of men working at piece-work rates. In many cases, men in good health can make unduly high wages or unlimited piece-work. In some cases, women working alone, appeared to make unduly low earnings; but these cases are very few, and can be met by placing them on convalescent gangs. The gangs are usually mixed, and a strong girl can earn quite a reasonable day's wage working alone, the women of this district being accustomed to manual labour. I do not consider that experience has shown any sex distinction of wage to be called for.

31. The system of unlimited piece-work and piece wage prevailed throughout.

32. My conclusions on this point, as regards this district, are stated in paragraph 16 of final famine report, which I quote below—

“16. As regards the rates of wages, there is practical agreement among all officers who have been employed during the famine on the following points: (a) that the rate of wages paid for soft and medium soil, according to Mr. Glass's tables, are unduly high; (b) that the rates for hard soil, on the other hand, are too low for the gravelly and rocky soil of Chota Nagpur; (c) that the increments granted per 100 cubic feet for increased lead and lift are insufficient.

“In all these conclusions, I entirely agree. As to point (a), the tasks calculated by Mr. Glass, as entitling a labourer to a full day's wage, were based on the assumption that one-third of the labourer's time was wasted by the elaborate procedure of task system. With piece-work no such allowance is necessary, and, provided pits are always marked out beforehand, there would be no hardship in increasing the tasks, as calculated by Mr. Glass, by 25 per cent. As regards point (b), the 'hard soil' contemplated by the tables is the heavy clay of Bihar, whereas in Chota Nagpur a large proportion of the soil is either mixed with gravel, or pure gravel or decomposed rock. For these three classes of soil the rate paid per 100 cubic feet should be at least 25, 50 and 75 per cent. higher than those for ordinary hard soil. As a matter of practice, it was found, during the recent operations, that it was impossible for any man to earn a fair wage in these classes of soils.

"As to point (c), it is obvious that each 50 feet of lead and 3 feet of lift involves far greater labour than the 50 feet or 3 feet preceding it, the effort for carrying or lifting increasing with the distance covered. The tables fail to recognize this, and the result was that on all tank and embankment works the wages were always unduly low. I consider that the rate for each 50 feet or 3 feet should be 25 per cent. greater than the preceding one."

33. No task was ever exacted. Payment was made on the completion of a pit of 100 cubic feet regardless of the time taken over the work.

34. I quote paragraph 17 of my final report—

"17. As regards the class of works most suited to the needs of the country, there is no question that the people greatly prefer road work to any other. The making out of this work is easy, and they can understand the rules as to payment, etc. On the other hand, the chances are always against the completion of any road that may be taken up, and badly as improved communications are required in this district, the resources of the District Board do not allow of the completion of any but the most important unfinished roads, while to find funds for the maintenance of even completed ones is very difficult."

There is no question that the workers improved in condition.

I only heard of one case of a labourer having several rupees worth of pice collected; in another a zamindar sent his personal labourers on to the works to earn a small livelihood for him. Copper coin never returned to the treasury, and was never available near the works except at heavy rates of exchange, and I do not know what became of it and have never found any solution of the mystery. This district, however, ordinarily absorbs thousands of rupees worth of pice annually. In Bishenpur the workers complained that no rice was available in return for their cash; but, on the whole, I have no doubt that the bulk of the earnings went directly in the purchase of food. Personally, I have always advocated payment of wages in grain for the wilder parts of this district.

35. No work was usually done on Sunday. Labourers were allowed to work if they wished however, their work being measured up on Monday. I can see no objection to this system while piece-work prevails, and I have no experience of any other system.

36. Does not apply to piece-work of which alone I have experience.

37. The average wage per male unit was throughout low, but a very large proportion of the labourers worked only half a day.

38. Daily, where possible: it was seldom deferred more than two days.

39. There were no bantias on the works. The trade of the district is carried on in weekly bazars, and bantias are not available. I am strongly in favour of daily payments, but in the case of big works a

10 /

weekly payment on the day before the local bazar would meet requirements.

40. To the heads of family groups, except in a few cases in the Lohardaga subdivision, where heads of gangs were paid. Unless village gangs are voluntarily formed, the latter system is liable to grave abuse.

41. As noted above, we had no penal or full wage, and wages varied with the weather and the counter attraction of the cultivating work in the fields. It was usually below the full famine wage.

42. It was a system of unlimited payment-by-result, at a wage slightly below that deducted from the task wages of the Famine Code combined with Mr. Glass's estimate of the normal daily task. The rates were prescribed by the Commissioner from time to time.

43. There was no maximum. Necessitous children were relieved in kitchens which were available near every work; but in many cases even small children helped on the work. Weakly persons were paid a daily wage for a small task, practically a nominal one. I prefer this to a favourable rate of piece-work, which causes the weakly to unduly exert themselves, and also gives rise to dissatisfaction among others who, though not weakly enough for the special gang, yet consider they should be granted the privileged rates.

44. No.

45. No, except in very few cases. I do not consider our staff were in any circumstances capable of working the Code task system, and no arrangements existed for its introduction.

46. (a) The Commissioner's; (b) common rice; (c) yes. The Commissioner varied the rate according to changes of half a seer to the rupee only.

47. Works were opened. "Choukas," i.e., outlines of pits 10 feet square marked out, and then any person who wished could come and dig, the completed "choukas" being measured up and paid for daily. As noted above, no other steps were necessary.

48. There was no task, as noted above.

51. There was no drafting from work to work.

52. As noted above, no distinction was made between large and small works. All were under the same system of supervision and control.

60. Yes, about two-thirds of the population is aboriginal. No special tests were applied, but possibly Government was influenced by this fact in yielding to the representations of the local officers, and declaring famine in certain areas, where rigid tests had not been applied.

The Uraons were usually ready enough to work; the Mundas very backward; the hill villagers specially, of whatever race, were found very difficult to draw to the works.

On the whole, the measures were undoubtedly successful.

61. An attempt was made to get the jungle villagers to bring down timber as a relief work, but this failed owing to the want of a competent and sympathetic staff.

62. Never.

63. No. The staff was inadequate to attempt this. The weavers of this district are capable of doing earthwork.

64. In Chainpur, they asked for weaving work in preference to earthwork; but finally went on the ordinary works. This thana is so remote that arrangements for relief by weaving would be very difficult.

65. None. There was good rain during the cold and hot weather, 1899-1900, and fodder was never scarce.

68. The system of unlimited piece-work in theory provides for the dependants of workers, as well as for the workers themselves. The strict application of this rule was, however, not enforced under the Commissioner's orders, and in many cases dependants of workers were, doubtless, relieved with cooked food at kitchens. They were never relieved with cash and uncooked food.

69. Relief was almost entirely in kitchens. I quote Chapter VII of my final report—

“Gratuitous relief commenced with the declaration of famine in the Lohardaga, Bishenpur, Chainpur, Toto, Sisai, Karra, Khunti, Basai and Palkot thanas, in the first week of July, and was confined, as far as possible, to relief in kitchens, only those for whom such relief was quite out of the question being admitted to relief by dry doles. The administration of gratuitous relief continued up to the 15th September, some kitchens having been closed during the preceding fortnight. On the 15th September all gratuitous relief was stopped under the orders of Government, valedictory doles from the Charitable Relief Fund being granted to all deserving cases. The total number of kitchens opened was 58, divided as follows:—

Lohardaga thana	7
Bishenpur „	5
Chainpur „	8
Toto „	5
Sisai „	8
Karra „	15
Khunti „	5
Basai „	3
Palkot „	2
	—
TOTAL	58
	—

“The attendance steadily increased up to the week ending 18th August, when the average attendance amounted to 8,561. From that week it fell steadily until in the week ending 15th September, the average attendance was only 4,503. The percentage of men was always below 10, that of woman steady at about 15, while the children were always from 70 to 80 per cent. The cost of the

adult ration was almost exactly one anna throughout. The ration granted was 7 chitaks of grain for an adult, 4 chitaks for a big child and 2 chitaks for a small child, only one meal a day being given. The adult ration was found fully adequate, that for large children sometimes inadequate, and that for small children sometimes excessive; but with a competent kitchen Superintendent, these excesses and inadequacies can easily be adjusted. The consensus of opinion among the Charge Superintendents was that the kitchen system, though open to many objections, is for the district the best that can be devised. In this opinion, I agree, assuming that famine in this district will always have to be combated with a weak scratch staff as in the present year; but in the case of severe famine with an adequate relief staff, I should unhesitatingly pronounce in favour of the Codo system, on the score of both efficacy and economy. The objections to the kitchen system are the following:—

“(1) It necessitates a staff for each kitchen that is often difficult to secure, and a building which it is usually impossible to borrow or hire and very difficult and somewhat costly to build.

“(2) The number of persons who will attend the kitchen on any given day being uncertain when the daily supply of rice is cooked, accurate accounts are impossible.

“(3) Circle Officers are apt to take attendance at the kitchen as in itself a test of distress and to shirk their house-to-house enquiries; many children are thus admitted to the kitchen whose parents ought to feed them, while cases of serious distress may be overlooked.

“(4) In bad weather attendance at kitchens is impossible, and many hungry children have to go without their meal.

“(5) Adequate supervision to prevent speculation is almost impossible.

“(6) Government has to pay for cooking and condiments which the people will without difficulty arrange for themselves if dry doles are granted them.

“(7) Attendance at kitchens and the eating of meals there is revolting to any self-respecting native, even an aboriginal.

“Those considerations appear to me far to outweigh the only two advantages of the system, *viz.*, that the food is sure to reach the children for whom it is intended, and that the eating of unwholesome raw food is prevented. At any rate, as far as this district is concerned, aboriginals will almost invariably feed their children before themselves, and for the other classes, the kitchen system can hardly be worked owing to caste difficulties; while the eating of raw food can only occur where an absolutely famished person receives relief for the first time. The fact that a kitchen provides a test of necessity, I regard, always assuming that an adequate staff of relief officers is available, as rather a disadvantage than otherwise, enabling these officers to shirk their

proper work of personal enquiry into every case. One or two of the Charge Superintendents attempted to give relief by dealing out cotton to women; but these ended in failure, as such experiments are bound to do, unless a staff is available sufficiently large to allow of special officers being told off to work up these forms of relief."

70. In theory no Charge Superintendents and Circle Officers were ordered only to admit to gratuitous relief persons found after local enquiry to belong to the classes referred to. In practice, however, it is probable that many relief officers contented themselves with judging from the appearance of applicants at kitchens, whether they were proper subjects for relief or not. Regarding readiness to eat cooked food as a sufficient test of want, no formal test was applied.

71. None. They were unnecessary up to the close of the operations, the destitute vagrant class being very rare in this district.

74. Famine was declared in no area previous to the 1st of June, and the rains broke before any kitchen was opened. There were in all 58 kitchens. A kitchen was supposed to serve a radius of 5 miles.

75. Seven chitaks for an adult, 4 and 2 chitaks for large and small children. Once a day at fixed hours. No food was allowed to be taken away.

76. No such limit was fixed. They were often close to works.

77. Restricted. A copy of the instructions issued to Charge Superintendents is attached—

"(1) The number of persons on gratuitous relief is in places very high in proportion to those on the works. I trust all Charge Superintendents are taking all possible care to ensure that no one is fed at the kitchens except those who are (a) in real need, (b) have no one able and willing to support them, and (c) are unable to do any work.

"(2) I hear that in some cases Charge Superintendents have turned people off the convalescent gangs, on the ground that they had relatives able to work and support them. This is incorrect. Any person who wants work and is physically unable to dig 'choukas' should be put on to the convalescent gang."

78. Mostly aboriginals, as aboriginals will not eat food cooked by a Brahman. Where Hindu destitute persons were numerous, Brahman cooks were employed.

On the whole, the reluctance shown was small; all classes sent their children to the kitchens freely. Adults, as a rule, would only attend in case of dire necessity, even Uraons in Chainpur considering themselves degraded by eating in public.

79. Any local literate man that could be found. Circle officers (who were mostly permanent officers of Government) and Charge Superintendents exercised close supervision over all the kitchens.

80. No.

82. It was not suspended or remitted.

86. No.

87. It never exceeded 15 per cent.

88. As things turned out, the relief afforded was adequate. Towards the end of June, however, I certainly thought the staff available inadequate; and had a bad season supervened, we should, I think, have been in difficulties in July and August.

89. They were principally the aboriginal cultivators of the district, *i.e.*, occupancy tenants. The exceptions would not amount to 5 per cent.

90. Yes, certainly. There had been no recorded famine or serious scarcity in this district previous to 1897, and the people then seemed crushed and were apathetic to an inconceivable degree. Last year, they came far more readily owing to previous experience of the intentions of Government. The Mundas, even last year, hung back in many places, but with an adequate and competent staff, I think, they would come to work in a future famine.

91. No.

92. On the whole, I think, they are sufficient. The difficulty is that a very severe test for a feeble man is no test at all to a strong professional worker. If, however, you reduce rates, so as to test the latter, you choke the former off altogether. I can suggest no test preferable to that of the Code.

93. I regard any method of selection as wholly impracticable.

94. Registration through the weekly reports of village chaukidars at the outposts and police-stations: checked by the vaccination staff and police on beat duty.

95. I quote paragraph 23 of my final report.

My original estimate for expenditure on relief was one and-a-half lakhs of rupees, which was modified early in June 1900, in view of the progress of events up to that date to R90,440 as detailed below :—

	R
Works	47,875
Gratuitous relief	28,687
Establishment	11,484
Tools and Plant	2,394
TOTAL	90,440

99. They must have practically lived on wild products for several months in many parts. I am at a loss to understand why the effect on the public health was not greater.

100. There was very little immigration. A few starving families from Sarguja came into Chainpur, and that was all.

102. There were no orphans left on our hands.

103. I have no suggestions to offer.

104. No.

104 (a). Importations and exportations were weekly reported from the various police stations. All traffic in this district is by road. At the

outside a week's consumption for the district was imported.

105. No.

106. None.

107. Agricultural labour, such as weeding and planting, is always paid in grain, and blacksmiths, potters and others are also paid in grain. I have noticed no such tendency. Wages have not risen in sympathy with prices.

108. Only in the general resort to kitchens and the piece-work system. My view of the above has already been quoted. Also in the division of duties between Civil and Public Works Officers. This point I have fully discussed in my final report as follows:—

“This was noticeably the case in Chainpur and Bishenpur, but in all sub-divisions the attendance on the works was interfered with by irregular payments and by the introduction of technical fads in the arrangement and marking out of the works which the people did not understand. It is easy to blame Rai Krishna Chandra Banerjee Bahadur for this, but it must be remembered that he had, single-handed, to manage his office, submit all reports and returns from the works under him, and distribute money to his four sub-divisions, and that he was also seriously handicapped by the lack of proper staff; he knew that if he got rid of an untrustworthy subordinate, he would have great difficulties in replacing him, and his subordinates also were thoroughly conscious of this. While, therefore, I think that matters would have gone better had the Rai Bahadur been more ready to accept assistance from the Civil Charge Superintendents in the management of his works, and had been more willing to admit and report to me that things were going wrong so that I might at once have helped him, put them right, and that he might have shown a greater sense of the relative importance of giving work freely to all who needed it as compared with mere technical perfection in the works themselves. I think he certainly deserves credit for having kept the works going as well as he did. The District Engineer, with a smaller area in his charge and the great advantage of having his head-quarters at Ranchi and being in constant communication with me, had far less trouble with his works; but even in his cases hitches occurred owing to subordinates quitting their works without leave, and delays in the distribution of money. I finally in July found it necessary, at the risk of friction between the Charge Superintendents and the works officers, to give to the former very considerable powers of interference with, and control over, works in their charges, so as to ensure that some responsible officer on the spot would look into complaints and report shortcomings to me.

“In any future famine in this district, I would strongly recommend that—large works under the separate control of the Public Works Department (if such can be successfully arranged) excepted—

all works should be under the immediate control of the Charge Superintendents, and be reported on and paid for by them, any Engineering officers deputed to help in these works being employed solely as inspecting and advising assistants of the Deputy Commissioner, without separate offices or separate responsibilities. The system followed during the present year seems to have arisen automatically, inevitably from the fact that large numbers of test-works were opened and in full swing under the charge of Engineering officers before famine was declared and circles formed, and that it was impossible at the late stage at which famine was declared to break up the Engineering office already formed, and recognize the works in connection with the Charge Superintendent's offices. In a future famine it is probable that relief circles will be formed before any very large numbers of works are opened, and that relief-works and gratuitous relief will develop together, in which case the whole would be under the immediate control of the Charge Superintendents.

"As regards the system of work followed, all reporting officers agree that the piece-work system is the only one suited to this district; and in this view, while fully realising the theoretical advantages of the task work system, I agree, it is absolutely impossible to raise a competent and trustworthy subordinate staff for work in this district, and without such a staff the task system can never be worked. Again, a large proportion of the people of this district in a year of scarcity migrate for work to other districts, and those who remain are tied down to their lands and houses, and cannot, or at any rate will not, go any great distance for work, although experience has proved that they will often work for astonishingly small earnings near their houses. In any scheme of relief, therefore, small scattered works must be the mainstay of the operations; and this being the case, the only chance of successfully preventing fraud lies in the simple checks of the piece-work system. There can, however, be no doubt that in many cases able-bodied men came from a distance to the works, and earned far higher wages than are contemplated by the Famine Code or than should be permitted on famine works. Piece-work rates are supposed to provide for the dependants of the workers, as well as the workers themselves, and care must, therefore, be exercised in fixing a maximum wage; but I am clearly of opinion that such a maximum ought to be fixed, and I would place it one-third above the maximum wage of the Famine Code."

109. No.

110. In this district the only non-official agency regularly available is that of the missionaries whose help was successfully appealed for in the distribution of loans and the management of kitchens. I do not myself consider that the employment of non-officials not regularly taken on to the census staff tends either to smooth working or efficiency; and while I would always look to the missionaries for

/ 22

friendly advice and assistance, I would strongly deprecate their employment as substitute for a regular paid famine staff.

111. I cannot trace these effects owing to the adoption here of the undiluted piece-work system. I may note, however, that the people of this district *are extremely suspicious and always ready to think* that they are being cheated by any change introduced. Any alteration in the nature of the work, the system of marking pits, or the rate of wage invariably resulted in numbers leaving the works.

112. I have no experience on these points.

Mr. G. Balthasar, I.C.S.

Answers by Mr. G. Balthasar to the questions of the Famine Commission.

1. There was nothing unfavourable in the outlook. The harvests had been good.

2. The kharif sowings amounted to about 93 per cent. of the normal.

3. (a) 40·79 inches in the four months June to September. (b) 36·43 inches, 89·31 per cent. (c) 28th October 1899.

(d)—

	Normal.	Actual in 1897.
June	6·24	11·76
July	13·53	14·56
August	13·21	8·93
September	7·81	1·18

4 Twenty-nine per cent.

5. (a) Petty cultivators 60 per cent. (b) Labourers 5 per cent.

6. Proof of the necessity of relief was required by compliance with tests.

7. Rise in price of food-grains: exhaustion of food stocks ascertained by local enquiries: cessation of importation of food-grains: deterioration in the physique of the people.

8. Work on roads and Government estate irrigation bandhs at test-works.

9. (a) Lists were ready and the works had been located, but survey and estimates had not been prepared.

(b) No.

10. The programme contained both: in thanas containing Government villages, irrigation work in those villages were the principal works, and in other thanas road works.

11. The Government forests were opened in October 1899, before any other measure had been contemplated. Test-works were undertaken next, then the formation of a charitable relief committee, and then the opening of kitchens near works.

12. (d) Officers were deputed in April and May to tour through the affected tracts and observe the state of the grain stocks and general condition of the people.

13. In November 1899, Rs50,000 were allotted for distribution as advances to grain-dealers and others on condition that the amount advanced should

be spent in importing food-grains to be sold in the district. Loans were given as in ordinary years under the Land Improvement Loans Act, and loans were also given under the Agriculturists' Loans Act, but not at the outset. All loans were recoverable in full.

14. The country is for the most part unsuitable for the construction of irrigation wells. There was no direct encouragement of the digging of wells.

15. The work first undertaken with the specific object of furnishing a criterion of relief was road work under a District Board Sub-Overseer. It would not have been undertaken in other circumstances.

16. No tasks were exacted. The piece-work system was adopted on all works.

17. Yes. Weakly dependants were drafted into convalescent gangs; they did light work for a fixed wage and received an allowance for Sundays.

18. Increasing attendance: rise in price of food-grains: stagnation in the import of food-grains. This refers to one thana: test-works were continued at test rates in other thanas in which the distress was considered to be less severe.

19. Large public works, *i.e.*, road works were opened and small village works, *i.e.*, irrigation works were continued.

20. Under the control of the District Officer assisted by a Charge Superintendent and under the immediate supervision of Sub-Overseers. No scale of establishment had been prescribed in advance: the staff was appointed as required. There was no delay; tools and plant were available.

21. No work was large enough to require to be sub-divided: The charge was the thana in which several works were carried on.

22. This question seems to refer to a portion of a large work constituting an independent charge. There was no such charges. No arrangements had been prescribed beforehand.

23. Admission was free to all. No; no.

24. There was no fact on which such an opinion could be based, generally not more than seven miles.

25. There were no such officers as are contemplated in this question.

26. See Answer 22. There was a charge Superintendent in charge of all the operations in the thana.

27. See Answer 16.

28. The labourers were allowed to form themselves into family gangs, generally of two to five members. Attempts were made to form large gangs, but it was found inadvisable to enforce the system, owing to the opposition of the labourers.

29. There was no classification of ordinary labourers.

The following was the wage scale :—

Price of rice per rupee.	Class of soil.	TEST-WORKS.		RELIEF-WORKS.	
		Piece-work rate per 1,000 cubic feet.	Pice per chowka of 100 cubic feet.	Piece-work rate per 1,000 cubic feet.	Pice per chowka of 100 cubic feet.
1	2	3	4	5	6
Under 11 seers, but not under 10 seers	Soft .	R a. p. 0 12 6	5	R a. p. 1 4 0	8
	Medium	1 1 6	7	1 9 0	10
	Hard .	1 6 6	9	2 0 6	13
Under 10 seers, but not under 9 seers .	Soft .	0 15 0	6	1 6 6	9
	Medium	1 4 0	8	1 11 6	11
	Hard .	1 9 0	10	2 3 0	14
Under 9 seers, but not under 8 seers .	Soft .	1 1 6	7	1 9 0	10
	Medium	1 6 6	9	1 14 0	12
	Hard .	1 11 6	11	2 5 6	15
Under 8 seers, but not under 7 seers .	Soft .	1 4 0	8	1 11 6	11
	Medium	1 9 0	10	2 3 0	14
	Hard .	1 14 0	12	2 10 6	17
Under 7 seers, but not under 6 seers .	Soft .	1 6 6	9	2 0 6	13
	Medium	1 11 6	11	2 8 0	16
	Hard .	2 0 6	13	3 2 0	20

30. Under the system adopted, no such distinction was necessary.

31. See Answer 16.

32. I incline to the latter opinion.

33. See Answer 16.

34. Adequate. The effect depended on the industry of the workers; sufficient maintenance could be earned by a fair day's work. There was no such evidence. Yes; the labourers generally did enough work to earn a good meal of rice.

35. See Answer 17. Ordinary workers could work on Sunday and were paid the next day.

36. See Answer 16.

37. See Answer 16.

38. Daily.

39. See Answer 38.

40. To the head of the gang. This method is preferable.

41. See Answer 16.

42. Unlimited piece-works.

43. See Answer 17. Children were provided for either in the convalescent gangs or in the kitchens.

44. No.

45. Code Form 18 was used. The introduction of the task system was never contemplated.

46. See Answer 29. The scale was fixed by the Divisional Commissioner.

47. The Sub-Overseer was assisted by a Munshi or muharrir for each separate work under his supervision. All persons presenting themselves were admitted. Dependants were put into convalescent gangs or sent to kitchens. The muharrir was provided beforehand with a stock of tools which he distributed to workers. Pits were marked out in advance and taken up by the workers at pleasure. The Sub-Overseer measured the work at the end of the day and paid the headmen for completed pits; uncompleted pits were completed and paid for the next day. No measures were taken for conserving the water-supply or arranging for hospital requirements.

48. Charges were made in the first instance at the discretion of the District Officer and referred to the Commissioner.

51. No.

52. They provided a very considerable proportion of the total relief. They were all in villages belonging to the Government estate.

53. Irrigation embankments and channels.

54. Under (b) (i).

55. See Answer 54.

56. See Answers 16 and 29. Employment was given to every one who wanted it.

57. No.

58. No.

59. The only objection to their extension is the difficulty of supervision.

60. The number of aboriginal tribes is large. No. They were reluctant to accept relief, preferring to subsist on jungle products. The availability of this source restricted the scope of the relief measures.

61. No.

62. No.

63. No; there was no necessity.

64. A few attended; they were not physically unfit.

65. See Answer 63.

• 66. None; there was no necessity.

67. No.

68. By fixed cash wages in convalescent gangs and by cooked food.

69. Kitchen relief. It was the most suitable for the large number of women and children who had to be provided for, and it was easier to control than any other form.

70. The report is not available here. The only relief other than kitchen relief was the distribution of grain for a short time while the arrangements for kitchens were being completed. In the thana in which relief was first given, a list of recipients was prepared after local enquiry. Afterwards an emaciation, apparent inability to work, and willingness to eat cooked food were the only tests.

71. None.

72. See Answer 71.

73. See Answer 71.

74. All the 26 kitchens were opened in the district after the rains broke.

The recipients came from distances of five to ten miles.

75.

	For a man.	For a woman.	For children.
	Chs.	Chs.	
Rice	8	7	For big children, half of the male ration. For small children, quar- ter of male ration.
Dal	1	1	
Salt, ghee, condiments	1	1	

At some places meals were given in the morning and evening; at others, the recipients preferred one meal at midday. They were compelled to feed on the premises.

76. There was no such limit; the kitchens were open close to relief work and elsewhere.

77. See Answer 70.

74A. See Answer 71.

75A. See Answer 70.

76A. See Answer 70.

77A. See Answer 70.

78. Generally Brahmins: at one place an Oraon. In several cases the recipients were allowed to cook for themselves. No persons of high caste attended.

79. There was a muharrir in direct charge of each kitchen, under the supervision of a Sub-Overseer, if near a relief work. They were inspected by a Deputy Collector and two Sub-Deputy Collectors, and by touring officers, such as Police Inspectors.

80. No.

81. See Answer 80.

82 to 86. This measure was not adopted.

87. It did not exceed 15 per cent.

88. It would have been advisable to open kitchens at an earlier stage; to that extent there was defect.

89. Mostly landless labourers and petty cultivators. The workers on the small village works were mostly State ryots.

90. No.

91. No.

92-93. The tests of the Code are inclusive in a districtlike this. The difficulty is not to prevent persons not in need of relief from seeking but it to induce persons in need of relief to seek it.

94. The registration is done by thana officers, from information supplied by village chaukidars.

95. Such diseases had probably a considerable effect on the mortality.

96. The character of the water-supply had little, if any, effect on the mortality. The Jail well was disinfected several times during the cholera epidemic of 1900, the wells within the Municipality, with a few exceptions, were disinfected with permanganate of potash once during the prevalence of cholera.

97. None.

98. There were none.

99. To a very large extent; the weakly were injuriously affected.

100. No; there was no sign of any such immigration.

101. See Answer 100.

102. A few were kept in the charitable dispensary and afterwards adopted.

103. No.

104. There is no railway.

104(a). There are no statistics of traffic.

105. No.

106. No.

107. Yes. There is a slight tendency in the parts contiguous to the civil station. To a certain extent.

108. The system of payment by results was adopted instead of the task system. Yes.

109. No.

110. Not used.

111. There were no such changes.

112. There has been no such experience.

Mr. F. W. Ward, I.C.S.

Answers by Mr. F. W. WARD to the questions of the Famine Commission.

6. In Bishenpur thana the necessity of relief was assumed from the fact of crop failure, and from the fact that a large proportion of the inhabitants had become physically reduced. In Lohardaga the necessity was assumed partly from the fact of crop failure, partly from statistics obtained by observing the progress of test-works, but mainly from the fact that a large number of the inhabitants were becoming physically reduced.

7. On the 18th May, I went to Bishenpur thana to make general enquiries into the condition of the people there. I found that the majority of those through whose villages I passed were very much reduced, and that many of them had not sufficient grain left for seed. The people of Kasmas, though not as a rule so reduced, were no better off in the matter of grain.

In Lohardaga the condition of the people had never been as bad as in Bishenpur, but towards the end of May some of them were showing unmistakable signs of distress, and the attendance on the test-works rapidly increased, and it was found that in many cases their stock of food had run very short, and, unlike the people of the hills, they were unable to supplement it to any large extent by jungle products.

8. The first relief measures undertaken were in the nature of village test-works. They were commenced in December, and were added to from time to time, so that eight were in progress in March. The earthwork was paid for at a fixed rate per thousand cubic feet. The test consisted in the rate being much lower than the normal rates, regard being had to the increase in the price of staple foods.

9, 10.—

11 (a). Test-works were the first relief measures started in all parts of my charge except in the hill tracts of Kasmas, when there were no relief works at any time.

(b) There were no poor-houses in my charge.

(c) Kitchens were not started till the commencement of the rains, and none were started on the works.

(d) A small amount of private charity was distributed in Lohardaga town, but in no other part of my charge.

12 (a). At the time when gratuitous relief was started, that is to say, at the commencement of the rains, Bishenpur thana and the western portion of

117

Lohardaga were made into a famine charge and four Circle Officers were appointed under a Charge Superintendent. The duties of the Circle Officers were (a) to arrange for village relief, (b) to observe and report on the general condition of the people to the Charge Superintendent. From the previous November, officers had been employed to report on the general condition of the people direct to the Deputy Commissioner.

13.—

14. Irrigation wells are only employed for the cultivation of garden vegetables in the immediate neighbourhood of towns and large villages, and from the hilly conformation of the ground cannot be generally employed.

15. The first works undertaken were village roads under the District Board. The same roads were subsequently placed under the control of specially deputed Public Works Department officers.

16. The task system was not employed.

17. Payment was strictly in accordance with results. There was no maximum or minimum wage or rest day allowance.

18.—

19 to 51. No large public works were opened.

SMALL VILLAGE WORKS.

52. Small village works were throughout the chief measure of relief. No gratuitous relief was given before the break of the rains and no large public works were opened.

53. Village roads employed the majority of the labourers, but two irrigation *bunds* and three tanks were also completed.

54. As test-works some of the village works were under Civil Agency by direct management. After the middle of March they were all placed under the supervision of officers drawn from the Public Works Department, but they were still under Civil Agency.

55.—

56. No attempt was made to work the Code task system. Employment was given to every one who wanted it.

57. No such system.

SPECIAL RELIEF.

60. The inhabitants of my charge are practically all aborigines. Relief had always to be taken near to their houses. With the exception of one village whose men camped on a work, forty miles from their village for three or four weeks, no villagers came to a work, which was more than four miles from their houses.

61. Towards the end of famine operations timber was bought at rates depending roughly on the size of the timber from the inhabitants of the hill vil-

lages. Wood cutting is the normal occupation of the majority of the hill villages, and this was the only form of relief they would accept.

62. No.

63. Do.

64. In the non-cultivated part of my charge no class of cultivators or labourers was averse to working on the relief works. Many had become physically unfit for heavy labour before the relief-works were opened.

The hill villagers, whose cultivation is of the most primitive kind, and who in normal years depend largely on jungle products, were never so severely pinched as the villagers in the valleys. No works were started in the immediate neighbourhood of the hill villages and no works were attended by their inhabitants.

65. No such measures were taken.

66. There was no unusual mortality among the cattle and no such measures were taken.

67. No.

GRATUITOUS RELIEF.

68. No allowance was made for dependents, as the work was paid for strictly by results.

69.—

70. No.

71-73. No poor-houses were opened.

74. No kitchen had been opened either in Lohardaga or in Bishenpur on the 25th June, when the rains may be said to have broken. Afterwards ten kitchens were opened.

75. Kitchens were expected to serve a radius of from two to three miles. Much of the country is so hilly and the villages so scattered that the kitchen system could not be introduced among them.

76. The ration for an adult was 7 chattaks of rice with 1 chattak of dāl (*urid*) taken once a day at a fixed time. Children received proportionate amounts according to the Code rules. The food was eaten on the premises and could not be taken away. Kitchens were in three cases opened within a short distance of the works, but lists of kitchen attendants were kept up, and relief-workers and their dependents were excluded from the lists.

77. There was considerable difficulty in getting those in need of relief to attend the kitchens. Kitchen Superintendents placed all newcomers on the lists provisionally. The lists were checked periodically by Circle Officers, who removed undeserving applicants. The lists were also checked from time to time by the Charge Superintendent. Most of the applicants were in obvious need of relief, and the number of those removed from the lists by inspecting officers was very small.

No poor-houses were opened.

Village relief lists were drawn up by Circle Officers. The recipients of relief had to go once a month to some centre to obtain a week's rations.

The Charge Superintendent was, as far as possible, present at the time of distribution and was able to check the lists.

76. Payment was made in grain weekly at fixed centres

77. No such relief given.

78. The cooks were always Oraons.

79. The adults of castes other than Oraons usually objected to taking cooked food, but children of all castes took it readily. The Kitchen Superintendents were as far as possible local zamindars. In other cases any literate person who was willing to undertake the work was appointed. The Superintendents had to keep up daily attendance rolls and accounts and send in weekly returns. They were subject to inspection at irregular intervals by the Circle Officers and Charge Superintendent.

80-81. No cheap grain shop was opened.

82-86.—

GENERAL.

87-90.—

91. It was usually difficult to induce those who were really in need of relief to accept State relief in any form.

92. The Code tests in general were not used.

93-96.—

97 (c). A sweeper was employed at each of the kitchens. His duty was to keep the place clean, and he was under the orders of the Kitchen Superintendent.

98. No such shops.

99. The people supplemented their food to a large extent with jungle products. Even in the cultivated valleys and plains the Oraons in normal years largely supplement their food with jungle products, and in some of the hill villages little or no rice is grown. Many of the people in Bishenpur had had no rice since December 1899, and the jungle products on which they fed not being sufficiently nourishing in themselves to support life, they had in several cases become very emaciated before relief was brought them.

100-101. No such immigrants.

102. There was no difficulty in disposing of orphans who were taken in charge by their relatives.

103-104 (a).—

105. The zamindar's authority is sufficiently powerful for them to obtain the labour of their cultivators and labourers when they require it. Agriculture is the only industry in my charge, but tradesmen and others found difficulty in obtaining coolies, even at fancy prices in Lohardaga town. But this only affected Lohardaga town and its immediate neighbourhood.

Mr. C. H. Corbett.

Answers by Mr. C. H. Corbett to the questions of the Famine Commission.

6. In parts of the district the failure of the crops had been so complete that it could be assumed that relief would be necessary.

Test works were, however, started, though, except as a means to discover the acceptability or otherwise of relief measures, they are not in my opinion of much service in this district.

7. Throughout February I was on tour through some of the worst affected tracts of the district.

The following facts were observed:—

- (1) The poor condition into which large numbers of the people had fallen.
- (2) The lowness of the grain-stocks.
- (3) The high price of rice. (It was selling at $10\frac{1}{2}$ seers against 18 seers in a good year).
- (4) The large quantity of jungle food which was being consumed—roots, berries and such like matter, which would usually fetch no price at bazar—were commanding a ready sale.
- (5) The people in some of the worst places were beginning to become callous.

8. Test works were opened at various places. The works were tank-digging and road-making and the rates paid were about one-third below those sanctioned by the Famine Code.

The test was a severe one.

11. First test works were opened and continued until the formal declaration of famine.

Beyond the private charity dispensed by the Jesuit and the German Lutheran Missions, both of which have large numbers of converts in the tracts where I was working, little could be done to organise private charity.

When famine had been declared (*i.e.*, in June), kitchens, not on the works, but in close proximity to them, were started as a means of gratuitous relief.

Poor-houses were not necessary, as there are but few wandering vagrants here.

Fodder was sufficient, if not ample, and forests were not required to be opened.

12. (a) When famine had been declared, the Famine Code system of Charge Superintendents and Circle officers was put into force.

(b) Nil.

(c) Do.

110

(d) Several thanas were given me at the outset through which to tour and observe and report facts which might come to my notice. Afterwards, when famine was declared, the Code system of inspection by Charge Superintendents and Circle Officers was worked.

13. Seed loans were granted at the end of May and the commencement of June. In my charge more than Rs12,000 were given out on loan.

The money was lent repayable on 1st January 1901, with interest.

17. Yes, in strict proportion to results. There was no maximum and no minimum wage; no rest-day allowance and no allowance to dependants.

18. The fact that the test works at low rates were, considering all things, drawing fairly large numbers, the near approach of the rains making it probable that still greater numbers would shortly be in need of relief.

LARGE PUBLIC WORKS.

The works were public under the definition in section 407, Chapter VI of the Famine Commission Reports 1898. Village works were not possible here.

23. Admission to the works was free. No system of selection was tried.

No distance test was insisted on, and compulsory residence on the works would be impossible.

Not more than 4 miles at the outside and seldom more than 2.

The Codo task system would be difficult to work here on account of lack of staff. It was never tried.

Piece-work was the system in force.

I consider that relief can be adequately afforded in cases of acute distress such as is experienced in this district by a system of payment by results.

The scale of wages, except perhaps at the outset, was adequate.

The workers were easily enabled to keep in good condition.

A certain class of workers did, certainly, towards the close of operations save upon their earnings, but as a general rule this was not the case.

Those that did so come to the works in the capacity of professional diggers worked long and hard. This style of worker was not encouraged.

35. The system employed was one of *unlimited* piece-work. No rest-day allowance was given except in the case of the weakly gang.

38. Payment was made, and it is imperative that it should be so made, daily.

Gangs were not formed. In some cases wife or child would "carry" for the husband or parent. Payment was made to the digger in these cases. The work was so set out as to enable an individual

to complete his "piece" daily. I prefer payment of the individual here to the formation of gangs and payment to the head man.

The system was one of *unlimited piece-work*. It most resembled the system described in Famine Commission Report, section 211, that adopted on the Tribeni Canal.

The family gang, however, rarely exceeded two persons, the work being set out in very small portions.

Children for the most part assisted their parents on the works. Workers were nominally supposed to support their children, but some received relief in kitchens after these were opened. Weakly gangs were formed and attached to each work; they were paid a daily wage, varying according to the price of rice per man, woman and child respectively for normal task.

No.

Yes, nominal muster-rolls.

Under the orders of the Commissioner. Fixed on the price of rice.

Variations of less than half a seer per rupee were neglected.

Previous to the opening of a work, considerable trouble was taken to advertise the fact amongst the neighbouring villages. The Charge Superintendent personally visited these villages to explain to the people the nature of the work, the wages that would be paid. Selections were also made for the weakly gang.

Endeavours were always made to have the work which was open to all marked out in advance of the workers. The work was set out in *chaukas* of 100 cubic feet (1,000 cubic feet was tried and abandoned) and payment made on each completed *chauka*.

Tools were supplied, but generally the worker supplied and preferred his own implement.

These do not apply to this district.

Yes, the people amongst whom I was working were mostly Kols. Special tests were not applied. They were very backward to take relief even when it was carried to their very doors.

At the commencement of relief operations the general idea of the people was that they were being imposed upon. They are accustomed to working for their zamindars for nothing and imagined they would receive nothing for their work, and even when they saw the money paid, had a fixed idea it *must* be inadequate.

In some places I found them even difficult to approach and villages deserted on my arrival.

They are imbued with a proud and independent spirit, and I think found something repellant in being reduced to accepting relief. As time went on, however, to a great extent owing to the influence of the Missionaries, they put aside much of their distrust and shyness, and, I think that, taking

everything into consideration, the measures taken were successful.

For some of the hillmen of Chainpur an attempt was made to organise a system of wood-cutting relief—logs suitable for culvert-making were to be cut and carried to fixed centres. The work was in charge of the Circle Officer.

The scheme failed, principally, I think, owing to the unsympathetic attitude of the officer in charge of the work.

In capable hands I am convinced the scheme would work.

No.

No.

At the commencement, yes. They are physically fit for ordinary labour; indeed, they are accustomed to it.

The weavers all cultivate their own *jols*, and though they asked at one time for relief in their craft at Chainpur, such relief would be difficult to organise in so inaccessible a part of the country. Their craft is not of a delicate nature, and I can see no reason why they should not work like other people.

GRATUITOUS RELIEF.

Kitchens were the backbone of the system of gratuitous relief.

Kitchens were assumed to be superior as a means of relief to grain doles as affording a surer relief to children. The adoption of the system, however, was attended with much difficulty in obtaining the requisite staff. I am of opinion that a *grain dole* system would have worked successfully at Chainpur and its management would have been attended with very much less difficulty.

74. Nine. All after the rains broke. Kitchens were established as far as possible, so that every village in the charge should have a kitchen within 3 miles. This, in point of fact, was not accomplished.

A man got 7 chattacks, a woman 6 chattacks, a big child 4 chattacks and a small child 2 chattacks. It was found possible to add on 1 chattack ration for very small infants who could consume a little rice.

Meals were given at fixed times once a day.

Admission was restricted. Selection was made by Circle Officers on their village visits, checked by the Charge Superintendent.

Admission was by ticket given by the Circle Officer.

The Circle Officer, checked by the Charge Superintendent. Recipients were visited and inspected by the Charge Superintendent as often as possible.

76. (b) Payment was made in grain to certain approved persons who could not reasonably be expected to attend kitchens. The grain was distri-

buted weekly by the Circle Officer at his headquarters.

In this district there are many women whose husbands are absent in Assam or Bhutan. To some of these relief was gratuitously given.

Kol cooks in the majority of cases. At some kitchens, where Hindus attended, Brahman cooks were entertained. As a general rule grown up people disliked attending kitchens; they permitted their children to do so.

Christians showed as much reluctance as any other caste. Their spirit of natural independence revolted at accepting charity.

79. The Code regulations for "kitchens" were worked. As Superintendents, it was found that native missionary preachers and school-masters were the most suitable when available.

Latrines were erected, but remained unused. The people disliked them as being something they were unaccustomed to.

The people, I am inclined to say, always supplement their food with wild products to a considerable extent. Before relief operations were started, in many cases fully 75 per cent. of their food must have been gathered from the jungle. Some persons, I know, refused relief and lived on jungle products exclusively for days. This consumption had a very bad effect on the health of the people, and during the latter part of the rains dysentery was rife.

One meal a day only was given at kitchens. This was, I think, justified owing to the difficulty frequently experienced in reaching the kitchens owing to flooded rivers.



Babu Krishna Kali Mukherji.

Answers by Babu Krishna Kali Mukherji to the questions of the Famine Commission.

4. The *kharif* harvest of 1899 was, on the whole, not more than 25 per cent. of a normal harvest.

6. Proof of necessity was required by compliance with tests.

7. The test works were not largely attended. There was a large emigration from the district showing that the people were pinched and were anxious. A house-to-house enquiry was made in April in several thanas. I was ordered to do this work in three thanas. In the course of this enquiry, I found that there was very little food-grain in the houses of most persons, the people were on short commons and were subsisting on jungle produce to a great extent. The outturn of *mahua* was bad, and mango was a total failure. In May I was deputed to Karra thana to dispose of applications for seed loans, and I found people, especially children, had already begun to be emaciated.

13. Loans under the Agriculturists' Loans Act were issued recoverable in whole. In May 1900 I made enquiries in connection with loan petitions in Karra thana, and the petitioners were required to receive the loans at Ranchi Treasury. I recommended loans to the extent of about ₹10,000 in Karra thana. In June ₹13,500 were advanced to me, and out of this I locally issued ₹13,475.

14. I believe well-irrigation for rice lands is practicable in this district in many places and is likely to be useful in a year of drought, but it is very seldom resorted to. In November 1899 I saw in two places wells had been dug in to irrigate rice lands, and the crops so irrigated were much better than those of surrounding lands.

19—52. In the part of the district, where I was employed (Karra thana) none of the works were large public works, as none of these employed 1,000 persons in the average for three months.

53. Road works, tanks and embankments.

54. In Karra thana the works were conducted under the supervision of the District Engineer.

55. None of the works were conducted through landholders or by means of other non-official agency.

56. Code task system was not worked; work was done on the piece-work system.

57. No system of selection of applicants for relief was tried. All who came were given work.

59. In this district relief is required to be brought near the homes of the people. At the first sign of scarcity many of the able-bodied men who are likely to be in want emigrate to other districts. Those who remain are generally required to look

after their own cultivations and cannot afford to work at a distance from their homes. Most women and children also remain behind. Small works are more suitable under these circumstances. If large works are undertaken in the beginning with liberal wages, it would have the effect of stopping emigration, and this in itself is not desirable. The fact that the people of this district are accustomed to emigrate in large numbers to labour districts is a real safeguard against famine becoming acute here. The emigrants are generally able to send small remittances which greatly assist the people whom they have left behind.

60. There is a large aboriginal population in this district. No special test was applied to them, but a special house-to-house enquiry was made in several parts of the district (see answer to 27). The aboriginal population was not forward to take relief. For a long time they subsisted largely on *sag*, jungle fruits, etc., rather than come to the test works.

61. There are no reserve forests in this district.

62. No.

63. No.

64-65. In the part of the district where I worked, the artisan classes are generally also petty cultivators, some of them, *e.g.*, *Telis* (oil-pressers), were in a bad way, and they were reluctant to go on relief works. No special measures were taken to relieve them, but their children received gratuitous relief in the kitchens.

66. No special measures were taken. The cattle were in a poor condition before the rains broke out about the middle of June. The monsoon rains burst accompanied by cyclonic winds. A large number of cattle died at this time, being evidently unable to stand the inclement weather. This mortality was sudden, and nothing could be done to prevent it.

68. The relief-workers on the piece-work system were supposed to earn sufficient wages to support their dependants, but in many cases dependants received relief in kitchens.

69. Gratuitous relief was mainly given in kitchens.

70. No.

71-73. No poor-houses were opened.

74. In Karra thana where I was employed there were opened altogether 16 kitchens. The first kitchen was opened on the 8th June, and the rains broke out very shortly afterwards.

75. Seven chittacks rice for adults, male and female, and two to four chittacks for children, besides *dhal*—one chittack for adults and one-quarter to half chittack for children.

Meals were distributed once in the day at fixed time.

Recipients had to feed on the premises, and were not allowed to take food away.

76. No. In several places kitchens were near relief works.

77. Restricted onquires were made as to the circumstances of the recipients; but, as a rule, emaciated people were at once admitted.

The lists were weeded out from time to time.

74A. Circle Officers, and the lists were checked by Charge Superintendent. Most of the recipients were inspected every week by Circle Officers and Charge Superintendent when he happened to be present. Those who could not come to the headquarters for physical inability or similar reason, used to send their tickets through relatives. These were inspected in their villages from time to time.

76A. (a) In grain; (b) weekly; (c) at the headquarters of the circles as a rule; but an exception was made in certain cases when the grain was distributed at the homes of the recipients.

77A. Village relief was given only to the persons mentioned in the Code.

78. In most of the kitchens the cooks were Munda or Uraon Christians. In one kitchen there were Brahmin and Rajput cooks.

In the part of the district where I was employed (Karra thana), unmarried children (except Brahmins) had no objection to take food cooked by Munda or Uraon Christians. Hindu and Mussalman adults would not take food cooked by Mundas or Uraons, and Uraon non-Christian adults sometimes objected to take food cooked by Christians; but the number of persons belonging to these classes who required gratuitous relief was not large, and they were relieved by doles.

79. Most of the kitchen Superintendents were catechists belonging to the German Lutheran, or Catholic, Mission. There were frequent inspections of the kitchens by Circle Officers and the Charge Superintendent. The points to which special attention was paid during inspections were (1) that the attendance was properly and regularly recorded by the kitchen Superintendent, (2) that the rations were given according to the prescribed scales (wooden spoons to measure a fixed quantity were supplied to the kitchens for this purpose), (3) that they kept proper accounts of expenditure of rice, etc., and (4) that the returns were correctly abstracted for the registers.

80-81. No grain shops were opened.

87. The number never exceeded 15 per cent.

88. I do not think relief was either excessive or defective.

89. Generally petty cultivators having occupancy rights.

91. Paddy is usually lent on condition that 1½ times the quantity lent are returned, but last year two to three times were demanded; but no facts came to my notice showing that the people were less reluctant than formerly to exhaust their own resources before accepting State relief.

92. Yes.

95. In the Karra thana where I was employed the deaths numbered as follows, month by month, as compared with the corresponding months of the previous year:—

		1899.		1900.	
		Total deaths.	Ratio of per thousand of population.	Total deaths.	Ratio of per thousand of population.
April	. .	121	1.25	221	2.27
May	. .	168	1.73	191	1.97
June	. .	145	1.49	194	2.00
July	. .	142	1.48	253	2.61
August	. .	163	1.68	230	2.37
September	. .	147	1.52	215	2.22

It will be seen that, as compared with the preceding year, the death-rate was high. Small-pox, I believe, accounts for the high death-rate in April 1900, although the returns show very few cases of small-pox. Cholera to a small extent accounts for the high death-rate in July and August, but the high mortality in June to September is chiefly due, as I ascertained on enquiry, to the prevalence of dysentery, or fever accompanied by dysentery. The people were in an enfeebled condition and the disease was quickly fatal. Locally, the prevalence of dysentery was attributed to the eating of *sal* fruits, which have not considered wholesome.

97. No special sanitary arrangements were made or necessary, as the number of workers was never large. In kitchens the recipients were required to clean their kitchen every day after their meals.

99. The people supplemented their food-grain, as already stated, with wild products. This certainly told on their health. See answer to 95 above.

Rev. Mr. K. Kiefel.

Answers by the Rev. Mr. K. Kiefel to the questions of the Famine Commission.

1. We had here three famine years, *i.e.*, 1897-1898 and 1900; the first was by far the severest. According to my knowledge, in 1897 about 450 to 480 people died of immediate starvation; during 1900 I heard only of eight such cases. Though seeing famine to come, I did not at all expect such severe famine, which in its acute form broke out rather suddenly, and found me unprepared.

The deficiency of rain was one cause; the rice disease, called *sarha*, also *thuti*, *raya* (perhaps *spha-celia*) was the other. The latter appeared in 1896, and was worse in 1897, *and has not yet disappeared*.

For want of seed and on account of the weakness of the people, fields were badly cultivated in 1897. This and *sarha* and insufficiency of rain count for the failure of the crop of 1897, and the famine during 1898.

The average of *all* the crops of 1896 was 25 per cent. only of a normal crop. In 1897, we had neither *mahuas* nor mangos. In 1898, people were greatly helped by a fair *makua* crop, and an extra good mango crop.

2. In 1897, about 25 per cent. only was cultivated *normal*, 40 to 50 per cent. badly, and 25 to 35 per cent. not at all.

Of the other years, I have not instituted any enquiries on this point.

4. In 1899, the rice crop was 25 per cent., *mundua* and *urid* 75 per cent., all other crops 30 to 45 per cent.

5. I judge 75 per cent, of which 15 per cent. are hired servants of the cultivators.

6. The extreme poverty of the people from the former years, and the great failure of the crops were unmistakable proofs of the coming famine. I knew it also from house-to-house visitation in the district.

Test-works are not at all a certain proof of the existence or extent of famine, *if they are undertaken according to Famine Code Rules*. Test-works are a worse than bad proof, *if undertaken too late*. The wages fixed by the Famine Code are 25 per cent. below the usual wages in common years. As people are already weak then, they earn only about 50 per cent. of the usual wages, which is insufficient to support a single man, not to speak of the family dependent on him, which are left perfectly destitute as soon as their head has to go away for work. It is better then for them to sit at home and to eat *sag*.

Test-works should be open no later than in January, and on the *ordinary* scale of wages prevailing in the country.

14. Yes, of two kinds : small wells for vegetable gardens and large wells for irrigating rice-fields, etc., or for turning large areas of *taur* lands into rice-fields. The latter might be of two kinds : (1) artesian wells, (2) common large wells of a depth of 50 to 60 feet and a width of 13 to 15 feet. During the famine of 1897 I have built a well as a relief-work at a cost of R.600. It is 40 feet deep and 13 feet in diameter. It would suffice to irrigate 4 to 6 pawas or 16 to 25 cottahs of rice land in years of insufficient rainfall. Care only should be taken that chiefly the larger number of petty cultivators derive the benefit of it. If *one* rich person, perhaps the landlord, derives all its benefit, it would in no wise diminish famines.

I induce my people as much as I can to dig small wells for their little gardens. If the cultivating of more vegetables and potatoes could be brought about, the severity of famines would be greatly diminished.

24. In this district, nearly all the sufferers by famine are petty cultivators, having a house, a garden however small, some trees, at least one pair of oxen. The better situated have goats, also cows, etc., *and for them it means nearly always entire ruin, if the whole family have to go a far distance for work.* Even if they could arrange for their beasts, on their return they would find themselves dispossessed of their fields, their little household belongings being stolen, probably the house unroofed, and only a *portion* of larger families can go any distance for work ; and this only, if there are more than one male adults in the house.

For the above reason, people from greater distances could not attend to the relief-works, but they rather emigrated.

The worse consequence of families going for work a far distance, would be that their fields remained uncultivated, even if they were not dispossessed.

Therefore people should, as a rule, not be required to go farther than 4 miles for relief-work.

28 and 112. I should reply jointly to. Neither in 1897, when the supervision of all the Government works in the beginning was in my hands, nor in my private operations during 1898 and 1900 did I ever think of arranging other than family gangs. As soon as families are separated, all moral ties must be loosened among our class of people. Famine tends to demoralize people to a sadly high degree. But if families were separated, the relief-work centres must become breeding places of immorality and other evils : husbands would leave their wives, parents their children, and children their aged parents, as far as my very sad experience goes ; and, as far as possible, families should be kept, or even forced, to work and to live, together.

If families were separated, it would be hard for the women to work ; for some impossible, for, as a rule, women cannot dig. If families are left together, the men will dig the soil, the women carry it away, and even small children are able to help.

Living is also a good deal cheaper if families remain together than if they have to separate.

30. My experience is that no distinction whatever should be made with regard to wages between men and women, between weaker or stronger people, because the proper management and keeping of accounts for the man in charge of the gang or work becomes then very difficult, the inspection as to whether wages are paid correctly or not becomes almost impossible, the possibility and temptation for munshis and overseers to defraud the labourers is increased by such a method.

I take it for granted that the question is only about contract work (payment by results).

On daily labour, wages should never be below nor above 2 annas for a man, one anna for a woman, and 2 pice for a child below 12 as long as the price is not above ₹1 for 12 seers of rice. But my experience has shown me that daily labour on relief-works is the most objectionable. I have tried it on my private works, and had to give it up. The same was my experience on Government works. It fosters laziness of our already lazy people; Government does not get a proper amount of work done for the money; and the opportunity for the managing staff to defraud Government is then *very* great, as they cannot be inspected daily.

I would much rather suggest that a dole of grain should be given, in addition to the wages, once a week to all people who, on account of great weakness, or unskillfulness in the work, or of the great distance they have to come from, cannot earn enough to support themselves.

To make fraud and stealing impossible, this dole should be given by the Circle Officer or the manager of a Government cheap grain shop, and *not* by overseers, banias, etc. The munshi in charge of the gang should prepare a list of such people of his gang as is annexed under No 1, and send them all together to the Circle Officer for the dole on a fixed day, if possible with some mate. The dole for a week might be from 3 lbs. to 5 lbs. for a man or woman, half as much for a child under 14 and a quarter for a child under eight, according to circumstances.

If such a plan be adopted, only very weak and unable people need be sent to a kitchen. Only in case of weak women, whose children are already fed at a kitchen, it would be better to send them also to the kitchen.

I have tried this plan during the last famine on my private relief-works, and found it working excellently. Even old and feeble women I could then, with a good conscience, force to go to the works; and they did go and did work.

32. Not any system will be found suitable if relief-work be started too late, and people already be weak, demoralized and unmanageable.

According to my experience, payment by results, equal to all men and women, stronger and weaker people—only amended, if necessary, by what I pro-

pose in my reply to query 30, *is the only suitable mode*. If daily wages are paid, or a system of payment by requirements be adopted, no doubt more people will attend to the works, especially of the lower classes; but management will be found so difficult, the costs so very high, and people so extremely lazy, especially the lower Hindu classes, and the Musalmans not better, that it would be much better and cheaper to relieve them gratuitously.

From a moral and educational as well as from an economical point of view, I hold the system of payment by results *to be the proper system*. I have tried the other system in 1898 on my own private works, but had to give it up and change it for the system of payment by results, though a European missionary was managing it under me. And my experience of 1897 at the Government works was almost worse.

Most important it is to start relief works *in time*, when people are not yet emaciated and too weak for work. They will be able then also to earn enough at lower rates of wages, and Government will get more work in return. And should the numbers attending test or relief works show that there is no famine and no need for work, it will be a very small loss to Government to close works again. But if works be opened too late, not any relief will be found adequate, though Government will have to spend very much larger amounts of money and get little in return in the shape of labour.

34. Annas 2 for soft, annas 3 for medium, and annas 4 for 100 square feet of hard soil is sufficient, as long as the price is not above Re. 1 for 12 seers of rice. If the daily earnings are annas 2-6 per man, annas 1-3 per woman, and 6 pies for a child of 10, it will suffice. If the price is Re. 1 for 8 seers to 11 seers, the rate should be increased by one-fourth, and again by one-fourth if the price rises above that. As a rule, the soil will be softer, when famine is most severe, *i.e.*, during the rains. And this will to some measure make up for the higher prices. The weaker people and women should also be put on the softer and the stronger ones on the harder soil to somewhat equalize matters. Kindly compare here my suggestion in reply to query 30.

34. The test-work wages are too low, as already explained. But too high wages are not justifiable either. When in 1897, I believe in August, annas 4 was paid for 100 square feet of soft soil, two brothers, for instance, earned Rs. 6-12, equal to 19½ seers of rice at 3 seers per rupee, in one week.

I think, the rate of wages should be altered with great caution. Too often changes have an injurious effect upon our greedy and distrustful people. Every change gives also always an opportunity to the subordinate staff to fraud.

Mistakes would be avoided to a great extent, if the Deputy Commissioner was given the power to fix the rate of wages according to Famine Code rules. He is more in direct touch with the people

and circumstances than any officer, and will know best when and where to change rates.

During the last famine, test-work wages were inadequate. Afterwards I found it neither too high nor too low in comparison with prices and people's wants.

With me on my private works, people work generally more willingly at a somewhat lower rate. Reasons are—

- (1) They are paid daily.
- (2) They never have to sit idle and to wait for hours, sometimes a whole day, till they are put to work or get their piece.
- (3) They never are fraudulently deprived of their earnings by wicked subordinates, as munshis and sub-overseers.
- (4) They receive no bad treatment.

33. Payment should always be made daily, for, as a rule, people have nothing to live upon for a week.

40. Payment should *never* be made otherwise than individually; never to the head of a gang. The morals of the people are so low that they cheat each other, whenever they can, especially during famine. Husbands deprive their own wives of their very food and wives their husbands, the Hindus being ten times worse than the Kols. And according to the evil customs of the country, a "headman" would always take a portion of the earnings simply as his *dasturi*, and would manage to turn away from the works everybody who would refuse to him such *dasturi*.

59. I have no experience in very large works; but I am of opinion, that the massing of too large numbers of people should be avoided as much as possible, and that small works, including small village works, are always preferable, as long as the number of applicants permit it; and if "small village works" mean tanks and *bundhs*, repairs to roads, or making new roads through or near that village, and if people of the neighbouring villages are admitted, I would think it to be the most effective work. But against one form of small village work I would be strongly opposed, that is, to give a certain amount of money or grain to some village headman and to make him responsible for spending it on relief-works, such as making small *bundhs*, tanks, roads, and wells (wells are not a good relief work, as they permit only a very limited number of labourers and skilled labourers too). In this part of the country the "village headman" would at the rate of 90 per cent. be the landlord. He would make such works as would suit him, and improve his own property; he would *force* his villagers to the work and would underpay them or pay them not at all. And investigations into such cases would prove resultless. If the "village headman" was any other chief man, he would do no better, and fights and quarrels for years would result. Only under Government management can such works be of use.

74. Kitchen circles should never be larger than 4 miles in diameter. For an emaciated child, a walk of two miles to and fro, *i.e.*, 4 miles per day, is already almost impossible. In 1897 we had some cases where people died on their way to the kitchen, though it was only about a mile. If an adult is to bring the child, he or she will lose the time for work and that children should sleep at a kitchen is most objectionable, as long as there is no relative to take care of them. I have had the very greatest difficulty to induce starving children to come to the kitchen for more than a mile. In many cases I failed entirely. The low caste Hindu children I found more willing to attend on a kitchen than the Kols, who often said: "gintanale," we are ashamed. They find it often dishonourable to be fed for nothing at a Government kitchen.

77. Restricted. Persons able to work, or children having parent or other relatives able to feed them, were not admitted. Here, too, it was much more difficult to get the low Hindu castes to go to the works than the Kols. Big boys quite able to work, rather starved again, after being dismissed from the kitchen, than that they had gone to the works, which, in several cases, were quite near their homes.

78. Except at Jaria, only Kols were employed as cooks, and we had not any difficulty. Higher Hindu caste people, of course, did not take any such food, and there was no occasion to relieve such at kitchens. Unmarried children always take such food, with a few exceptions. The only people who gave trouble were some Birsaites and Ghasies, and a Brahman at Jaria, though there was a Brahman cook. For our district, we need only Kol cooks, with a few exceptions. The very few people, who could not partake of such food, can be, and have been, successfully relieved by dry doles. Such cases were a Guala at Ishe and his wife, a blind Teli of Lalganj and one or two others.

When in 1897 I had to open kitchens (18 in all), I tried in vain to get Brahman cooks, and many adult Kols declared that they would not take Hindu food.

86. Not a single case of remission of rent has come to my notice, though the average crop since 1896 was only 30 per cent.

89. Only Kol cultivators and low Hindu classes.

92. I said already that I consider the test, as far as regards test-work, too severe. The wages, daily or by result, should not be below the rates of payment for labour *commonly* prevailing in the country.

95—99. I have observed that, during the last famine, the better situated people, who were not relieved, had suffered much more from dysentery than in 1897 and 1898. They have become poor, and though not just, starving, had to suffer great deprivations: 30 to 40 per cent. of my Christians belong to that better situated class: but out of 8,500 people, I had 189 deaths. This is very high, as we had neither pex nor cholera.

Another disease has greatly scourged people, that is, bad wounds, especially at the feet. Many were laid up for months. This I attribute specially to the very extensive consumption of roots, leaves and herbs people resorted to.

A very large number of cases of Hydrops, in mild cases swelling of the feet, shows the general weakness of the people.

105. No. Labour is getting very scarce in our district. But this is due to the enormous emigration.

107. Cash wages have risen from 25 per cent. Every cooly gets 2 annas per day; formerly 1½. The general rise of prices and the scarcity of labour is the cause of it.

Now I would beg leave to say that if the rather elaborate and not very simple Famine Code could be simplified, especially as far as its rules are to be observed by the subordinate staff, mates, munshis in charge of gangs of relief-workers, of sub-overseers, and overseers, kitchen superintendents, Circle Officers and Circle Inspectors, such a change would be most important. Some of the rules, tables and forms are so difficult and impracticable that it is very hard and often impossible for the subordinate staff to understand and to work them. Relief operations are made difficult, costly and ineffective to some degree. Attention to the people should be the main work, and not working at forms and other papers, as is now the case. Whenever I came to see one of the subordinate officers, I found them nearly always brooding over some rules and forms, and filling up forms, and every one of them complained, and not only the subordinate officers. An experienced officer will gradually understand and work the most difficult rules and forms; but the mostly suddenly appointed and inexperienced subordinate famine staff are unable to do it. Local men will always be preferred. But where are so many men to be had, if so much is demanded from them? And the highly paid Calcutta Babu, who comes for six months to fill his pocket, has only this one object, and if his papers and accounts are clear, and he gets always his "proper food," he will be satisfied. For the sufferings of the people he does not care, and all the best intentions and efforts of Government and a Deputy Commissioner will fail for the sake of the wretchedness of such subordinates. I have not met a single sub-overseer or Circle Officer, who was up to his post, neither in 1897 nor in 1900, except Tin Kari Babu, the Circle Officer at Jaria, a hard-working and faithful man, and he was a clerk of the Deputy Commissioner. Some have been worse than useless. Some sub-overseers have greatly hampered and spoiled the work, and done even worse than that in spite of all efforts of superior officers.

If the rules and accounts are so difficult, the first question in appointing the staff will always be after his ability to deal with them. If they be simple, the first question will and should be, after the candidate's character and faithfulness.

I beg to submit two forms for consideration instead of the uselessly difficult and impracticable Forms Nos. 20 and 21. In 1897, I opened 18 kitchens, and supervised and worked 6 till the end, the rest for the first time only, and in the last famine I had so much to do, just with kitchens, that I may say, I have some experience, and according to it, I must say, Form No. 20 and especially No. 21 are *very* impracticable. How is it possible to call the roll in half an hour according to that form, if there are 350 attendants, as was the case in Halsa? But even with 100 it is impossible. It never should be necessary to compare the admission register, as there are so many names, always occurring again. The attendance register must have the name of father and mother, too, and also the village. There

should be only three classes :
 * Men and women shown only by "M" or "W." adults ; * big children 8 to 14 ;
 small children below 8. The

rations can fairly correctly be served out, if the Deputy Commissioner's rule of 1898 be adopted to use a large iron spoon holding about 2 chitaks. No. 4 of Form No. 20 and No. 2 of Form No. 21 are confusing, also Nos. 5 and 8 of Form No. 20 and Nos. 3 and 4 of Form No. 21. The names should be all *at the beginning* to admit of reading them at one glance. Comparison of admission register at roll calling time must be rendered unnecessary. The register must suffice for a whole month, as to copy it weekly is too great and unnecessary a burden. Last famine we tried it here in the form proposed by me, and it worked excellently.

It seems to me that, as a rule, the rice-water is thrown away, or perhaps given to someone's cattle. But it should be given to the kitchen attendants. The Famine Code does not say anything about it. Rice-water (*maurpnai*) is a very wholesome and nutritious drink.

A most important relief it would be, if at the next famine Government would open cheap grain shops for the *suffering* portion of the population, and also lay in a stock of grain for kitchens, likely to be opened. This need not anyhow collide with the Government rule of free trade. But if such or any like steps are not taken, Government, as well as the suffering people, are left at the mercy of the merchants. In districts with insufficient communications such cheap grain shops will be of the greatest value, and keep the prices at a moderate height.

During the last famines, the merchants and also the landlords acted as follows : when it was clear that famine was coming, they enforced the repayment of rice loans and purchased as much grain as could be got. Their *pyadas* were sitting on the treshing-floors to take away even the very last grain from the poor cultivator. All was stored up by the mahajans in hope for very high prices. In 1897 already in January the mahajans said that they would sell only when the rice would be 5 seers at the rupee. The result was, that in July and August we purchased 3 seers at the rupee at Govindpur. Before and afterwards it was 4, 4½ and 5 seers.

In 1899 the mahajans stored up enormous amounts of grain, hoping again for such prices. Fortunately they stored up too much, the demand was not as great as anticipated, as the people had no money to buy, and on account of the enormous emigrations therefore the price did not rise so high. But still it rose to 7 seers for the rupee. Then I opened my cheap rice sale, and prices went somewhat down again, but still kept at $7\frac{1}{2}$ — $8\frac{1}{2}$ seers, afterwards 9 seers.

Cheap grain shops for the *suffering* portion of the population is what we require most at a famine after relief-works and kitchens.

I must say here that the wealthy native merchants, as well as landlords, utterly have failed to comprehend their duty during famine. *They have done nothing.* On the contrary, they have fattened themselves at the expense of the sufferers as much as they could, with the cruelty and mercilessness of a never satisfied wolf. People have become very poor, and very much indebted to merchants and landlords; *many* have mortgaged their fields. Rice debts have run up very high. Merchants and landlords allow this, and then lay hold on the debtor's fields.

Of my own private relief operations scarcely anything can be of interest but a few figures which I give:—

	R.	a.	p.
Seed loans given . . .	5,167	8	0
Spent on relief-works . . .	5,270	3	$10\frac{1}{2}$
Gratuitous relief . . .	369	2	3
Loss by sale of cheap grain . . .	910	9	6
Total . . .	11,717	8	$7\frac{1}{2}$
Besides this in building relief-works . . .	2,899	0	$4\frac{1}{2}$
	14,616	9	0

On building works we had from 150 to 250 people. The above figures show the highest attendance.

Glancing over the last famine, I cannot close this without gratefully mentioning the 7th August as a bright and happy day for so many during a hard time, the day when His Honour the Lieutenant-Governor visited our sufferers. His Honour's visit, his great kindness, will be remembered for a long time by our poor people.

No. 1.

Proposed list of weak labourers receiving gratuitous doles of grain in addition to wages.

Work at village
for the month of

In charge of ^{Munshi}
Sub-overseer

supervised by

Number.	Name.	Sex.	Village.	Age	Heretofore supported by (if by any one).	Cause of recommendation for dole in addition to wages.	Famings last week.	Recommended for—	Re-commended by—	Sanctioned by—	Received for week ending	Received for week ending	Received for week ending	Received for week ending
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
							A. P.	Sz. CH.			M. s. CH.	M. s. CH.	M. s. CH.	M. s. CH.

No. 2.

FORM No. 20.

[See Section No. 121.]

Register of children relieved in kitchen No. Circle in village of since .

Date of admission.	Number of admission ticket.	Number in attendance register.	Name.	Name of father or mother or other relative heretofore supporting it.	Village.	Age.	Sex	Date of removal.	Cause of removal.	REMARKS.
1	2	3	4	5	6	7	8	9	10	11

I suggest to strike out columns 6 and 8. The section is indicated by the age, and to arrange the attendants into messes seems almost impossible to me, at least for our country here. The smaller children will cry till the end, if they are seated separately from their mothers or brothers or sisters or friends. It is altogether not quite easy to manage a kitchen properly at feeding time, but almost impossible, if the seating into different messes is enforced. In serving out the proper rations, we had not the least difficulty, in spite of the large numbers.

No. 3.

FORM No. 21.

[See Section 129.]

Attendance Register of Children and Adult Dependents of Relief-Workers in Kitchen No. Circle in village of (Hulsa) for month of (May).

Number in attendance register.	Number of ticket and in admis- sion regis-ter.	Name.	Father's or mother's or other relative's name.	Village.	6 Section, i.e., man, woman, big child, or small child.	7																														
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	2					Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.
1	1	Somri .	Saku .	Hulsa .	Small child .	x																														
2	3	Maugra .	Bira .	Do. .	Man .																															
3	4	Sugi .	.....	Chalangi .	Woman .																														
4	6	Bharosi .	Lachman .	Gopalpur .	Big child .																															
5	8	Do. .	Iwa .	Ditto .	Ditto .																															
6	9	Somri .	Suku .	Jamalpur .	Ditto .																															

x might denote present both meals; o/ present first meal, absent second meal, or absent both meals; / present first meal, absent second meal. The above form would suffice for a whole month; the dates might be printed, the days written in the respective columns. Such an attendance register never requires comparison nt, and long searches in, the admission register, columns 4 and 5 showing all that is wanted; column 6 would simplify the making up of the weekly return. As it will do for a month, it will save labour and expense. Where only one meal is given, o might note absent, / present.

Mr. Romesh Chandra Dutt, C.I.E.

The following letter, dated 28th February 1901, was addressed by Mr. Romesh Chandra Dutt, C.I.E., to the Hon'ble the President of the Famine Commission.

Having paid some attention during some years past to the incidence and pressure of the land assessment in the different Provinces of India, I crave your permission to submit a very few remarks on the subject, and hope they will be laid before the Commission and receive such consideration as they may seem to deserve. It would have given me more satisfaction if I could have laid them personally before you, and explained them fully in reply to questions from Members of the Commission. But I was not aware of the formation of the Commission till last month; and even if I could have left for India this month, I should yet have been too late, as the work of examining witnesses is, I believe, nearly finished by this time. I am compelled therefore to submit my views in the only way open to me.

2. Paragraph 4 of the India Government's letter, dated the 20th December last, empowers the Famine Commission to ask questions on the subject of the incidence and pressure of the land revenue, and I shall confine my remarks to this one subject only. The suggestions I have made on this subject have been summarised under seven heads marked (a) to (g) in pages XIV to XVI of the Preface to my "*Open letters to Lord Curzon on Famines and Land Assessments in India.*" It is not my intention to go over all these seven heads in the present letter; my remarks will be confined to the first two heads only which relate directly to the proportion of the Land Revenue to rents and to the gross produce.

3. My recommendation under head (a) runs thus:—

"Where the State receives land revenue through landlords, and the revenue is not permanently settled, we ask that the "Saharanpur Rules," limiting the State-demand to one-half the rental, may be universally applied."

It is not necessary for me to say much with regard to this rule which is generally recognised in Northern India, and which was extended to eight districts of the Central Provinces by an order of the North-Western Provinces Board of Revenue No. 74, dated 16th February 1855. A change in the Settlement Code then made this Half-Assets Rule universally applicable to the Central Provinces. The rule was departed from in practice in the settlement of 1863, and when the time approached for the Settlement of 1893 the Rule was abrogated altogether (see the Chief Commissioner's letter No. 501S.,

dated 18th May 1887, and subsequent correspondence). It is not my desire in this letter to discuss if there were adequate reasons in 1863 and in 1893 for departing from this Half-Assets Rule; but I beg humbly to represent to the Commission that any such reasons which may have led to a departure from the rule exist no longer. The Central Provinces have been under British administration for half a century; most of the cultivable lands have been brought under cultivation; and prices have been affected by the lines of railway now running through the country. The Central Provinces can no longer be described as a newly conquered country the resources of which are wholly undeveloped, and the time has therefore come when the Half-Assets Rule may be finally and permanently introduced in these Provinces. The famines of 1897 and 1900 make the introduction of this benevolent rule all the more necessary and desirable, and I sincerely hope and trust that the Famine Commission, over which you preside, will find it possible to recommend the introduction of the rule for the good of all classes of people in these Provinces.

4. My recommendation under head (b) runs thus:—

“Where the State receives land revenue direct from cultivators, we ask that the rate may not exceed one-fifth the gross produce of the soil in any case, and that the average of a district, including dry lands and wet lands, be limited to one-tenth the gross produce, which is approximately the revenue in Northern India.”

The first portion of this recommendation is based on a rule which was proposed for Bengal in the Resolution of the Bengal Government, dated 6th August 1883. It was proposed in that Resolution that one-fifth of the gross produce should be the maximum of rent which should not be exceeded in any single case. The proposal was not embodied in the Bengal Tenancy Act of 1885 because, I believe, it was found that rents, when paid in money, seldom exceeded this proposed maximum, and often fell far short of it.

In contrast to this state of things, I may be permitted to point out that in Madras the rule recognised by the Board of Revenue and the Government is that the revenue paid by cultivators should not exceed one-third the gross produce. I venture to point out that this is inequitable and unfair. Madras is not a richer or a more fertile Province than Bengal, and the limit of the Government demand in Madras should not be higher than the limit which was proposed for private landlords in Bengal. In Bombay too the revenue paid by many cultivators, whose cases came to my own notice during an enquiry I made in March 1900, range between 20 and 33 per cent. of the gross produce. I am not speaking here of District averages but of individual cases only, and I feel certain the Famine Commission will think it desirable to protect every individual

tenant in Bombay and in Madras, as it was proposed to protect every individual tenant in Bengal in 1883. Provincial or District averages which are so often put forward by official witnesses, afford no adequate protection to individual tenants. The only rule which applies to each individual case, so far as I am aware, is the Madras Rule of one-third the produce, which is unfair to the tenants. And I earnestly appeal therefore to the Famine Commission to recommend the framing of a more equitable rule which will afford adequate protection to all individual cases, and to every particular tenant, in districts and provinces where the land revenue is paid directly by the tenants.

5. The second part of my recommendation quoted in the preceding paragraph relates to District averages or Provincial averages. I crave permission to point out that the figures representing these averages can never be accurate, because the actual produce from year to year is never correctly ascertained. To take one remarkable instance, the Famine Commission of 1878 in Volume II, page 112 of their Report, represented the Land Revenue of Madras as 6·3 per cent. of the gross produce of the Province. But the evidence of the Madras Board of Revenue quoted in Appendix III, page 394 of the same Report, shews that the real proportion of the Land Revenue to the gross produce in ten districts which had been settled was between 12 and 20 per cent. for dry lands, and between 17 and 31 per cent. for wet lands. The reason of the mistake made by the Famine Commission of 1878 in their estimate is obvious. Such estimates are based on the area of land under cultivation, and on the crops they are *likely to yield* and can never be based on a calculation of the *actual yield* in every individual field in a large district or province. *Patwaris* and *patels* who are sometimes employed in estimating the yield exaggerate the capabilities of soils and villages, and villagers have no chance of proving in a Court of justice that these estimates are wrong. And thus it happens that when the revenue demanded is believed to be only 5 or 6 or 12 per cent. of the gross produce of a district, in reality it bears a much higher proportion to the crops actually reaped by the cultivators from year to year. District averages and Provincial averages are therefore unsafe guides, and are oftener based on the possible yield than on the actual yield of the cultivated land ; and I therefore once more appeal to the Commission to recommend the adoption of a maximum limit to which every individual tenant could appeal in each particular case for his protection and security from over-assessments.

6. I have spoken in the preceding paragraphs of the Half-Assets Rule for places where the land-revenue is paid by landlords, and of maximum limit of one-fifth produce for each individual tenant where the revenue is paid directly by the tenants. I have not spoken of any limit of rents payable by tenants to landlords. This must be settled by the different Tenancy Acts for the different Provinces of

India, but the Commission will, I believe, accept my assurance that I am entirely in favour of strong and efficacious checks being placed on the power of landlords to enhance rents. Throughout the period of my service under the Government I have always been in favour of such limits, and I may be permitted to recall to your mind that during the prolonged discussions on the Bengal Tenancy Bill in 1883, 1884 and 1885 I did all that it was possible for me to do to fix a fair and moderate rental for Bengal tenants, and to restrict the powers of enhancements claimed by the Bengal landlords. I have not changed my opinions since. I am as strongly persuaded as I ever was that a moderate rental and a clear and intelligible limit to enhancements, are the basis of agricultural prosperity in India, whether the rents be payable to private landlords or to the State. And I sincerely trust and hope that the Famine Commission will find it possible to propose strong and efficacious checks to the power of private landlords, *sowcars* or money-lenders, to enhance rents from those who cultivate the soil and who form the backbone of the nation. And such checks being provided, the landlords should be permitted to settle rents with cultivators without the interference of Settlement Officers. It is infinitely better that the tenants should know and understand and maintain their own rights under equitable rent laws than that they should be eternally treated as irresponsible children by Settlement Officers. Against the wrongs of their landlords they will know how to defend themselves,—as they knew in Bengal,—but against the blunders of the Settlement Officers they have no redress. I venture to hope therefore that while the Commission will find it possible to suggest strong and efficacious checks on the powers of private landlords, they will also think it desirable that, (such checks being provided), the landlords and tenants should settle their rents among themselves as they do in Bengal and Northern India.

*Answers by Mr. A. H. Ashton to the questions of
the Famine Commission.*

8. Works were opened on the scarcity system, as laid down in paragraph 59 of the Famine Code. Distance and task were regulated to gauge the distress.

9 (a). Lists were ready, and surveys and estimates had been made out beforehand.

(b). Scale of establishment for the first work open provided for 5,000 people. Two reserve skeleton charges were also held in readiness and works decided upon.

List of candidates for famine service were kept and addresses registered.

15. Raising roads and afterwards deepening tanks. These were, in the case of large works, under the Public Works Department.

16. Tasks varied from 85 cubic feet to 120 cubic feet per male digger, according to the quality of the soil. The task was taken irrespective of previous occupation; but, in the case of women, only two-third task laid down for males was exacted. In cases of applicants for relief, who were manifestly too weak or physically unable to dig, they were put on to light work, such as breaking clods. When village relief was started, they were drafted on to the village lists.

17. Payment was in strict proportion to results, as laid down in paragraph 45, Appendix D.XIV of Famine Code. There was only an ordinary wage. A worker could not earn more, but might earn nothing. As laid down in remark column of table in paragraph 45 above referred to, the work not then paid for was carried on to the next day's work. There was no rest-day allowance.

19. Large public works.

20 (a). Under Public Works Department; (b) yes and yes; (c) no delay; (d) ample. There were enough tools available for ten times the number on any one day while the works were open.

21. They were divided into charges, and provision was made for 5,000 people in each charge; (b) no, never were approached.

22. Yes.

1 *Náib* Tahsildár, who was the officer in charge.

1 Cashier at R15 per mensem.

1 Clerk at R18 per mensem.

1 Flag *muharrir* at R10 to R12 per mensem.

1 Sub-storekeeper at R10 per mensem.

2 Work agents at R45 per mensem.

5 *Muharrirs* at R10 to R12 per mensem.

1 Conservancy *jamadár* at R10 to R12 per mensem.

1 Water foreman at R10 per mensem.

2 Office peons at R5 per mensem each.

2 Dák runners at R5 per mensem each.

2 Camp *choukhídárs* at R5 per mensem each.

1 Store *choukhídár* at R5 per mensem.

1 Camp sweeper at R5 per mensem.

No arrangements were made for hutting or sheltering the people, as no people lived on the works. On my own initiative I provided from May onwards screens of grass or leaves for the protection of workpeople and their children when they had to rest in the middle of the day. These screens were provided in the tank works, as in the case of roads the people preferred tree shelter.

As to conservancy or sanitation, no extensive arrangements were necessary, as the people did not live on the works in any large numbers. Ample number of sweepers were kept up to do what little conservancy there was.

As to the water supply, every well to which workers or establishment were likely to resort was fenced in and disinfected with permanganate of potash every Saturday evening. Barrels on country carts were provided for the carriage of water to the drinking places set apart for the workpeople. No used earthen vessels were moved from one place to another, but an ample supply of these were kept and the old ones were frequently replaced.

As to the food supply, a *bania* was kept in a central situation, but very little trade was done, as the people preferred to buy food in their own villages.

A hospital assistant, with a full supply of European appliances and medicines and native medicines with cots, blankets, and huts, was kept on each charge. A separate hut for infectious diseases was provided on each work at a good distance from the charge hospital. These hospitals, and the food given to the patients, were frequently inspected by me.

23. Yes; admission was free to all who would labour. No system of selection was made by ticket. Persons manifestly unable to dig were given clod breaking or earth carrying, and allowed their choice.

The works were always placed at some distance from villages, and, in the cases of large villages or towns, the work was generally four or five miles from them. Residence on the work was not compulsory, but neither was residence prohibited.

24. A large public work, such as specified in this question, might be expected to give relief over an area of about 25 square miles. It would of course depend on the population of such an area. In some parts of Bundelkhand the area would be larger, in others smaller. The distance people came for work varied from three to five miles, but small

numbers came from much longer distances: thus, for instance, in the Talbehat-Pura road a small number of people came from Lalitpur, a distance of about 30 miles.

26. Yes; there was a civil officer in charge of each charge. He was taken from the *náib* tahsildár class. The civil officer had full authority mentioned in this question.

27. No: the civil officer had no authority to prescribe tasks; these were settled between the Collector and myself. A task was prescribed by me for a work, and I asked the Collector to approve of such task. No variation in the task was made unless I ordered it. The local conditions never varied to the extent contemplated in this question. I fixed the task from personal knowledge of the ground to be worked on.

28. The new comers were told to gather together on the recruiting ground, which was marked by a large flag on a tall *ballí* or bamboo about 200 yards off from the head-quarters camp. They were sorted into family and then village groups, so far as possible, by an intelligent registering *muharrir*. Able-bodied men and B class women fit to dig selected and their families as carriers. The strength of a gang was 70 to 80 persons, under a mate, who was supplied with a mate badge. When the gang was registered in muster roll, it was made over to a gang *muharrir*. Muster-rolls were kept by mates in a tin box.

Every attempt was made to constitute village or family gangs, and with marked success. The village or family gangs did, as a rule, more and better work than the nondescript gangs.

29. The classification adopted was that laid down in paragraph 60 of the Famine Code. The wage adopted was that laid down in Appendix D-XV of the Famine Code. I cannot answer this question further.

30. In my opinion a more marked distinction should be drawn between the wages of men who dig and women who carry. The wages of a man in India are usually one and a half to twice as much as that of a woman. Taking the scale of 12 *seers*, as laid down in Appendix D-XV of the Famine Code, we see that B men get only 1 pice more than B women, C men, and C women. This led to the difficulty of getting B women while C women got the same wage as B women. I should be inclined to put B women in the same class with B men, making both do the same task, and give them the same wage. I would then give the carrier 2 pice less than the digger, and the child 1 pice less than the carrier. C men might be classed with C women, and the number of classes reduced from A men, B men, B women, C men, C women, D children to A, B, C, and D, no matter what sex. I cannot understand why a B woman who digs should get less than a B man who digs, or that a C man who carries should get more than a C woman. I should fix the wages of B workers under each

200

scale; then give C 2 pice less and D 3 pice less. The work under this system would be done cheaper, and there would be no hardship; and in India, when a woman sets to work, she does a great deal more than a man. Under the system we worked on a man did 100 cubic feet and got, say, 6 pice; the woman did 66 cubic feet and got 5 pice. The cost of earthwork in the former case came to 15 annas per 1,000 cubic feet, and in the latter to Rs. 3-0, or a difference of 4 annas per 1,000 cubic feet, and my experience showed me that a woman could do the 66 cubic feet very much sooner than the man did the 100 cubic feet. The majority of women diggers regularly completed their full task, whereas it was the exception to find men diggers complete their full task for more than two days out of six.

31. The system followed was payment by results from the outset and was never altered. There never were two systems in this district.

32. I am of opinion that payment by results is unsuited where acute distress or actual famine has been allowed to become existent. If relief is started in time, I am of opinion that the contract system is the best and most economical, as it would be based on the method of employing labour in vogue in India. If a series of earthwork, be they tanks or road raising, were started within a limited area under the contract system, I am convinced that the people would flock more readily to them than to a relief work under the payment by results system, though, of course, a work where gratuitous relief is given would hold the first place, as it is human nature to appreciate gifts more than earning, and no one on earth realizes more than the native of India how beautiful a gift of coin is. The order and method on a famine relief work, the fixed task, the frequent supervision by *Sahibs* and subordinates, the muster, and the prohibition of doing everything they are in the habit of doing, such as drawing their own water, etc., etc.,—all these are repugnant to the ordinary native and can only be overcome by the distribution of gifts in cash. Here, then, lies their unwillingness to go to a work where payments are by results, and their preference for a contract work.

Again, the cost of a contract work is infinitely less than a scarcity work (see Code, paragraph 59); and the same relief is afforded the people. I would suggest more European supervision, less native, and less form work in the camp. These can only be overcome by adopting the contract system in the early stage when distress is probable. When distress becomes acute, there is no better method than the "famine" system, with reversion to contract work when the famine has abated.

33. From 85 to 120 cubic feet, according to the nature of the soil. It was not graduated, but a full task demanded from all. No allowance was made for the distance workers had to come. Generally the task was lightened during the months of

May, June and July in consequence of the intense heat. The task was never below 85 cubic feet, as in these months the works open were mainly tank deepening. The change was made for all, and not for any particular class of persons.

34. The scale of wages was adequate for the individual, but very liberal for a family composed of the individuals.

The people who attended works were originally in generally good condition, and no deterioration were observable. It is difficult to say whether the workers saved or not, as they rarely patronized the camp *baniyas* living as they did in their villages and not on the works.

35. No rest-day wage was given. I am of opinion that the wages earned during six days was quite sufficient for seven days' food in the case of families; in the case of individuals, it is inadequate. I am inclined to prefer the present system, as it is exceptional to find a worker with no family.

38. Payment was made daily on all works throughout the famine.

39. They were paid daily. I never tried any other but daily payments.

40. To the individual. I prefer to pay the individual.

42. I have not seen a copy of the Report of the Famine Commission of 1898, and cannot answer this. I have tried to get a copy, but there is none in Jhānsi.

There was no maximum wage; the ordinary wage, as given in Appendix D-XV, was in force. No arrangements were made for the relief of children; those who could carry got a wage as laid down. Weakly persons capable of some work were put on to clod breaking and were paid at—men 4 pice, women 3 pice, and children 2 pice—until it was possible to draft them on to village relief.

I prefer the above to piece work, as weakly persons can scarcely be expected to do what I consider an individual can do. Again, the work they did cannot be uniformly the same for a distance of 5 feet; there may be no clods, and, again, there may be many and large clods.

44. No.

45. The system in force in this district allowed the famine system to be introduced at any time. Muster rolls and establishment were kept up to allow this at any moment.

46. Under the orders of the Commissioner.

47. The procedure laid down in Appendix D-XIV of the Famine Code was strictly followed on all points; these were not departed from in a single instance.

Wages were stiffened or relaxed under the orders of the Commissioner. Tasks were stiffened or relaxed under orders of the Collector, acting on the advice of the District Engineer.

51. No drafts were ever made.

90. People were less willing to come on to famine relief works during 1899-1900, owing to there being no gratuitous relief. I was repeatedly asked by villagers in villages widely apart when the gratuitous system would open.

92. The system which prevailed in this district did, in my opinion, prevent people not in need of relief from seeking it.

96. I do not know whether there was increased mortality. Permanganate of potash was used every Saturday evening to disinfect all wells in the vicinity of a work and camp.

98. The grain shops were regularly inspected and reported on. *Khesari* was largely in demand and was frequently forbidden to be sold by *banias* on the works, but it was sold to a very large extent in villages.

99. I cannot answer this with any certainty, but it came under my observation that people supplemented their food with *jharberi* and mango kernels when these were in season. These had no appreciable effect on their health to my knowledge.

100. There was very little immigration from Native States. The total number was, during the whole famine, about 1,400.

105. No.

109. No to all.

111 (a). There was no change in the system of work.

(b) and (c). The increase of the task and the lowering of wages generally reduced the number of people on a work for a few days, but they gradually returned to the former number when it was seen that the changes were permanent. The increase of the task had less effect than the decrease of wages, and the increase of wages had a still greater effect than the decrease or increase of task in lowering or raising the number of people coming to the work; (b) and (c) had no effect, to my knowledge, on the mortality.

(d) There were no fines; payments by results were in force

(e) There was no change once the work was opened, as the distance test was applied on the opening of a work and was adhered to throughout. Compulsory residence was not resorted to.

There was no drafting.

The changes when made led to no disorganization or wandering.

112. No people, or very few, lived on the works; hence the results set forth in this question did not occur.

Mr. C. A. Silberrad.

Answers by Mr. C. A. Silberrad to the questions of the Famine Commission.

1. The sub-division was badly prepared to meet another failure of the rains: 1894-95, 1895-96, 1896-97 (1302, 1303 and 1304) had all been bad, especially 1896-97; 1897-98 (1305) was a good year; 1898-99 (1306) only fair; and the winter rains of 1898-99 had been very scanty. In fact, there was some suspicion of distress in the south in the spring of 1899, which, however, was averted by a good *mahua* crop. Thus the sub-division had not by any means recovered when it had to meet the failure of the 1899 rains.

Since the destruction of the wheat on the black soil in 1893-94, the *rabí* in the black soil half of the sub-division has been insignificant, so that its loss was of little account in 1898-99. In the rest of the sub-division it depends solely on irrigation and was thus not affected.

2. The following table shows by parganas the area sown with *kharíf* crops since 1303 (in Lalitpur) and 1304 (in Mahroni), the settlement year in each instance:—

Tahsil.		Lalitpur.					Mahroni.				Total.
Pargana.		Bala-behat.	Dansi.	Lalitpur.	Tal-behat.	Total tahsil.	Banpur.	Mahroni.	Ma-raura.	Total tahsil.	Sub-division.
Total area		90,992	90,002	273,372	169,379	618,675	205,334	96,582	223,281	525,197	*1,143,672
Cultivated area.	{ 1303†	11,190	21,223	63,191	38,166	133,776	No figures available.				...
	{ 1304‡	No figures available.					51,493	20,803	46,053	118,349	...
	{ 1305	No figures available.									...
	{ 1306	10,267	23,047	62,924	41,000	137,238	51,729	21,136	42,964	115,829	253,067
	{ 1307	9,553	19,660	57,649	35,793	122,660	44,954	20,597	41,107	106,658	229,318
Percentage of 1307 area on settlement area.		86	93	91	94	92	87	99	89	90	...
Percentage on 1306 area .		93	85	92	87	90	87	97	95	92	91

* This excludes Government forest.

† Year of verification for settlement in Lalitpur.

‡ Year of verification for settlement in Mahroni.

It is very difficult to say what the normal area of the *kharíf* is here, for there has not been a normal year for some eight or nine years now, and I have not here the figures so far back. But it may be taken as approximately correct that in 1899 only about 90 per cent. of the area that would have been sown had the rains come favourably was sown with *kharíf* crops. If anything, this is too *high* a percentage. It seems also fairer to compare the sowings with those of the year on which the current settlement is based.

I give below a similar table for the *rabí* area; it will be useful in connection with answer No. 85:—

Cultivated area of Rabí crops.

Tahsil.	Lalitpur.					Mahroni.				Total.
Pargana.	Bala- bohat.	Bansi.	Lalit- pur.	Tal- bohat.	Tahsil Lalit- pur.	Ban- pur.	Mah- roni.	Ma- raura.	Tahsil Mah- roni	Sub- division.
Total area . . . . .	...	...	...	...	...	...	...	...	...	...
1303	3,002	5,297	17,554	12,567	38,420	...	...	...	...	...
1304 . . . . .	...	...	...	...	...	12,205	1,783	4,212	18,200	...
1305 . . . . .	...	...	...	...	...	...	...	...	...	...
1306	2,078	5,568	10,376	12,909	30,931	12,868	3,314	8,008	24,190	55,121
1307	2,152	4,257	10,370	9,612	26,391	9,970	1,412	4,847	16,229	42,620
Percentage of 1307 area on settlement area.	69	80	59	76	68	82	79	115	89	...
Percentage on 1306 area .	103	77	100	75	85	78	48	60	67	77

1303 was a famine year and the year of verification for Lalitpur tahsil.
1304 was also a famine year and the year of verification for Mahroni tahsil.

3. The following table shows the actual rainfall at Lalitpur for the four months (June to September) for each of the years 1891—99, the average total fall during those four months deduced from the four reporting stations (Lalitpur, Mahroni, Talbehat, and Narhat) in the sub-division, and the same average for the whole year:—

Month.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	Nine- years (1891—99 average.
June	3·65	2·50	9·79	15·57	6·44	10·64	7·16	4·01	8·32	7·56
July	4·68	15·70	2·33	16·65	10·08	10·18	12·51	14·26	18·44	11·67
August	23·31	20·20	7·35	11·12	8·48	12·23	18·01	14·35	3·40	13·21
September	20·74	8·96	6·06	10·13	1·09	0·62	4·82	5·77	3·70	6·98
TOTAL .	52·39	45·36	26·49	53·67	26·09	33·68	42·50	38·39	33·86	39·42
Average of four reporting stations for June to Sep- tember.	44·57	44·60	29·78	58·32	23·26	38·93	36·68	40·48	25·53	39·13
Average of four reporting stations for whole year.	46·27	48·10	37·81	66·63	31·31	34·87	39·37	42·40	26·15	41·44

* Narhat excluded.

The following table shows the rainfall for the months July to September for each reporting station:—

Month.	Lalitpur.	Mahroni.	Talbehat.	Narhat.	Average of Lalitpur.
January to May .	0·87	0·52	0·36	0·63	...
June	8·32	9·66	8·20	7·08	7·56
July	18·44	9·42	10·06	11·80	11·67
August	3·40	4·68	0·60	2·80	13·21
September . . .	3·70	1·34	0·82	1·70	6·98
October to December	0·00	0·00	0·00	0·02	...
TOTAL .	34·73	25·82	20·04	24·03	...

It will thus be seen that the average rainfall of the sub-division for the rainy season of 1899 (25.53 inches) was but 65 per cent. of the average (39.13 inches), while the shortage for the whole year was even more marked and being but 63 per cent. of the average and far less than any year since 1890.

But, besides the absolute shortage, what was still more important was the distribution. The monsoon began unusually early, and the fall in June and July was well above the average, but at the end of July the monsoon was practically over. This was still more marked at Talbehat than elsewhere: in fact, Lalitpur itself had far more rain than any other reporting station.

The heavy rain in June and July hindered sowing; so that, though the crops sown in June yielded fairly, their area was very short, and those sown, when the rain gave a chance of sowing, never had any chance of giving anything.

4. The sub-division is divisible roughly into two equal parts: (i) north and extreme south-east, the "red soil" tract; (ii) the remainder, on black cotton soil tract.

In the former the *kharif* was from 2 to 6 annas, with an average of about 4 annas or 25 per cent.; in the latter it was 6 to 12 annas, with an average of about 9 or 10 annas, about 66 per cent.

The population of the two tracts may be regarded as approximately equal.

5. At last census the following figures were given:—

	Total.	Agriculturists.	Labourers.
Lalitpur . .	157,153	93,286	28,397
Mahroni . .	117,047	72,502	19,047
Sub-division .	<u>274,200</u>	<u>165,788</u> 60 per cent.	<u>42,444</u> 15 per cent.

But agriculturists include persons only secondarily such, and labourers include agricultural and other labourers. But there is practically no industry in the sub-division save agriculture and cattle breeding (except of course money lending, shopkeeping, and such like trades). Probably 50 per cent. are solely dependant on cultivation and cattle breeding; it is impossible to separate these, and 12 per cent. obtain their living as agricultural labourers.

6. A test work was opened in the part of this sub-division most affected in October 1899.

7. The failure of rain after the end of July led me to make local enquiries in those parts of the sub-division where its effect seemed most marked, *i.e.*, the red soil areas during September. I found the small millets, the staple crop of this soil, almost total failures, and men idle in the villages, instead of, as usual at that time of year, a scarcity of labour.

8. The raising of the Talbehat-Pura road in the red soil part was opened as a relief work (scarcity system) on October 5th, 1900. At the same time the contractors who repaired the roads were induced to start work early in October.

The test on the relief work was that wages were based on a grain rate somewhat cheaper than the price of any grain procurable; also the work was at a distance from any large town. To earn a living wage a full day's work was required.

9. (a) Yes.

10. Both were available, but large public works were more specially contemplated.

11. (a) A test work was first opened, as noted above, on 5th October 1899.

(b) A poor-house was opened at Mahroni in February 1900.

(c) No kitchens were opened.

(d) All subscriptions were sent to the General Famine Fund (March 1900), but the Municipality of Lalitpur expended some Rs. 500 in excavating a tank as a relief work (May 1900).

(e) Grass was supplied to the people in the red soil areas from Government forests for the cost of cutting and delivery only (December 1899). *Mahuá achar*, and other fresh fruits were given free (March 1900).

12. (a) In December 1899 the *putwáris* were directed to prepare lists for village relief. These were checked by the *kánúngos*, and then by the *tahsildárs*, *náib tahsildárs*, Deputy Collector, myself, and by the Collector. Village relief was started gradually at the end of January 1900, no relief being given till the list had been tested by an officer of the standing at least of a *náib tahsildár*. The *kánúngos* were appointed circle officers for the distribution of money to the *putwáris*, who made it over to the actual distributors (generally the headmen of the villages), but they had no power to add to or remove from the list of recipients of relief (save in urgent cases). Two additional *náib tahsildárs* were sent to the sub-division to inspect the villages in certain parganas and correct the lists as necessary. The *tahsildárs* and ordinary *náib tahsildárs* did this in the rest of the sub-division. All were aided by the Deputy Collector and myself, who inspected over the whole sub-division. The Sub-Deputy Inspector of Schools also assisted and had power to add to or remove from the lists.

Sub-Inspectors of Police were directed to report cases where relief seemed necessary.

(b) and (c) Nothing was done.

(e) The officers inspecting for village relief did this.

13. Large sums of *taqávi* were advanced in September 1899 for *rabí* seed; in October and November 1899, and again in March, April, and May 1900, for wells; and in June for bullocks and seed. All these advances were recoverable as ordinary *taqávi*.

The bulk of these advances went to *zamíndárs*, but of such a large proportion was taken by the

zamindár for distribution to his tenants. Some advances were made to several hereditary tenants on their joint security—a method which might perhaps be more largely used.

At the end of the cold weather and during the hot weather of 1900 several partly (75 per cent.) recoverable advances were made to *zamindárs* for the construction to tanks and embankments.

14. Irrigation wells can be made in the red soil portions of the sub-division, not in the black soil.

No average depth to water can be given. All the red soil tracts are formed of hills and valleys, and each valley forms a separate water system; so that the depth to the water level varied from 1 foot below a large tank to 40 feet or more in other places, while often hard rock would be struck before water was found.

Tagávi was given for wells where such could be dug, and many new wells have resulted, though, of course, some of the *tagávi* has been mis-spent. These wells form permanent improvements, and were of some use under head (c), but practically in no case of any value for (d).

15. See answer to Question 8.

18. The works remained "scarcity."

23 and 24. An analysis of the residences of the workers on the Talbehāt-Pura road during the week ending 20th January 1900, the week when the numbers on that work attained a maximum, and when there was no other work in the sub-division, showed that 64 per cent. of the workers came from villages not more than 5 miles from the work; 16 per cent. from villages not more than 10 miles; 13 per cent. from villages not more than 20 miles; and 7 per cent. from greater distances. This I believe to be fairly typical.

It must, however, be remembered that the work was on the scarcity system, with nothing for dependants, nothing for Sundays, and the wage and task fixed; so that a living wage required almost a full day's labour, *i.e.*, with practically no margin for dependants earnable. Such a work obviously affords little or no guide to an answer to the question concerning the area served by a relief work.

32. I think that the scarcity system would provide sufficient relief for considerably more severe distress than was experienced here during 1899, provided—

- (i) that from the outset the basis of wages be strictly the price of grain *at the locality of the work*, not at the district headquarters;
- (ii) that, as distress deepens, the basis be a price one or later on even two grades higher than the actual price, so as to enable a man to earn enough for himself and, say, one dependant, even though he be too weak to perform a full day's work;
- (iii) that village relief be freely extended, so that practically the only dependants on the works would be persons whom

workers would have to actually look after on account of their helpless condition. In this connection I would like to insist on every village being inspected for village relief by a European official of the standing of an Assistant Collector at least.

If some method of paying workers in food could be devised, it seems to me it might go far to checking people coming on the works not in real need. Might it not be possible to pay workers by an order on a selected grain merchant for so much grain, with perhaps one pice per day in cash to purchase odds and ends, such as salt, spices, etc.? Such order might be made valid only for seven days from one particular merchant and non-transferable. The difficulty of procuring cash at the works would in itself probably go far towards stopping the merchant cashing these grain orders.

34. I consider that wages were somewhat low. They were based on the price of grain at the district head-quarters, not at the works where grain was frequently a *ser* or even two higher. I do not think it possible for any one not in good condition when he came on the works to have earned sufficient to maintain himself in health. This is borne out by the excellent condition of all persons on the works. Cases of emaciation were only found in the villages.

I have found no evidence to cause me to think that workers saved on the works.

35. No rest-day wage was given. See also answer No. 34. It would seem that, were it not for the extra work on the staff, it would be more in accordance with native custom to give no rest-day at all.

52. Village relief works were carried out by *zamindárs*, to whom partly (75 per cent.) recoverable advances were made. Suitable *zamindárs* were selected in places situated far from any Public Works Department relief works.

53. The works were, almost without exception, tanks. There were six tanks thus constructed and one "embankment"; this latter cost only R200.

54. The landlords conducted the work themselves, being merely guided by the District Board Sub-Overseer, who planned the work in each case and drew up an estimate, on which the advance was based. Many such plans and estimates had been got ready during the hot weather of 1899, before there was any thought of famine.

55. As noted above, the District Board Sub-Overseer planned the work, and assisted the landlord by advice from time to time, and measured the work before fresh instalments were granted.

All such works were done as partly (75 per cent.) recoverable system, and the advances were free of interest.

56. As far as possible, the work was paid at so much a basketful of earth, thereby enabling the landlord to employ weak persons without loss to himself.

Employment was confined, as a rule, to the landlord's own villagers, but in some cases was also given to men of other villages. As so large a portion of the advance was to be repaid, it seemed but fair that considerable latitude should be allowed, more especially as in three cases the advances were at first made on the understanding of full repayment and $4\frac{1}{2}$ per cent. interest, conversion to partly recoverable advances not being made till April or May.

59. In Lalitpur population is scanty, about 100 per square mile, and raising roads not of much value. On the other hand, except in the purely black cotton soil areas, tanks are extremely valuable; in fact, almost every village could be usefully provided with a useful tank; most of these would be too small to form a full Public Works Department charge. On the other hand, the number of landlords who could or would take partly recoverable advances is very small, and official civil agency, though never tried during the late scarcity, seems likely to be unsatisfactory. I would suggest that three or four such tanks within, say, a circle of two miles radius be grouped as one Public Works Department charge. The work thus done by the famine labourers would be of much greater utility, and would, in fact, be of the nature of an insurance against future famine.

60. The nearest approach to an aboriginal tribe in Lalitpur is the Saherias. They went on relief works fairly freely, *e.g.*, on the Talbehat-Pura road early in December 1899, when the average number of uuits per day was 917, Saherias (Rawats) formed 12 per cent. of the total number.

The grass cutting operations [see 11 (e)] afforded considerable relief to the Saherias of the jungles in the south of the sub-division.

A special relief fund for them was raised and a considerable sum distributed by the Forest officer.

But, in spite of all that was done for them, a considerable number have certainly died indirectly from privations endured during the year.

61. See 11(c) and 60.

Grass was cut by the Forest Department in the jungles in the south of the sub-division, thereby affording employment to Saherias, carted to the north where there was great scarcity of fodder, and there supplied to purchasers at the price of cutting and carting.

Mahuá and other forest produce was allowed to be collected free during the 1900 season, restrictions being made to prevent constructors taking advantage of the permission, and to prevent people from selling the *mahuá*, *achar*, instead of merely gleaning it for their own consumption.

62—65. No.

66. The supply of grass above mentioned is all that was done.

67. The grass mentioned as supplied in 61 was loose, as a rule. Experiment showed that, for the comparatively short distances it had to be carried and the comparatively small quantities to be dis-

posed of, pressing could not be usefully carried out.

69. No gratuitous relief was given on the work, as the relief was throughout on the "scarcity system." Persons unable to earn a living and visibly in need of relief were relieved in their own homes on the village relief system.

70. The test required to entitle a person to village relief was that he should be visibly in need of it and have no relations able and bound by custom to support him. There are in Lalitpur practically no *parda nashins* likely to require village relief. [In one village the headman told me there were such, but, while discussing their case, the alleged *parda nashins* (Thákurs) came out to show themselves!] See also 12(a).

71. One poor-house was opened at Mahroni in February 1900. Numbers were never high, the maximum being slightly over 100. The chief classes were broken down labourers and their connections and beggars forcibly drafted there.

73. Yes.

74. None.

74. (a) *Juár* and gram flour (mixed), or *juár* and barley flour (mixed). Of either 8 *chataks* for a man, 7 for a woman, with (in either case) 1 *chatak dāl* (*māng*); children according to ages; sick, according to medical directions, received wheat flour with *dāl* or rice, milk, etc.

75. (a) See 12(a).

76. (a) Payment was always made daily in cash and usually in the village of the recipients; occasionally, where two villages were very close together, payment to the recipients in both would be made in one.

77. (a) None.

78. *Brahmans* only.

80. None, except that one *bania* (Seth Mathura Das) sold some grain at a cheap rate as private charity.

82. The following table shows the lists of land revenue and amounts suspended in 1307 *fasl*:—

PARGANA.	Kharif.			Rabi.		
	Total <i>gist</i> .	Suspension.	Percentage suspended.	Total <i>gist</i> .	Suspension.	Percentage suspended.
	<i>R</i> <i>a.</i> <i>p.</i>	<i>R</i>		<i>R</i> <i>a.</i> <i>p.</i>	<i>R</i>	
Balahehat . . .	2,596 2 0	511	20	2,125 0 0	518	24
Bansi	7,400 12 7	3,077	42	5,836 13 0	543	9
Lalitpur	19,351 0 0	5,378	17	15,709 6 11	3,564	25
Talbehat	13,643 13 0	0,751	40	10,685 11 5	2,110	20
Total, Lalitpur Tahsil .	42,991 12 1	13,717	33	34,356 15 10	7,044	21
Baupur	15,611 5 0	5,540	35	13,701 12 0	2,053	16
Mahroni	6,469 15 0	2,144	33	5,482 1 0	1,820	33
Marsura	12,650 7 1	2,990	24	9,810 0 8	2,588	26
Total, Mahroni Tahsil .	34,731 11 1	10,674	31	23,993 13 8	6,741	23
Total, Sub-Division .	77,723 7 2	24,391	31	63,350 13 6	13,785	22

No remissions have yet been granted, though some have been recommended.

83. *Kharif* remissions were based mainly on the extent of failure of the *kharif* harvest; *rabi* remissions were based (i) on area, and (ii) on yield of the *rabi* harvest, except in the black soil areas, where for some five or six years past there has been practically no *rabi* at all, and the whole year's land revenue is practically paid out of the *kharif* harvest (aided in many cases by profits from cattle). Here the *kharif* harvest was also taken into consideration, and in many cases was the really guiding consideration. In cases where there was any reason for so doing, the state of the proprietors was considered. The tahsildárs noted on this, and I then myself settled every proposed suspension, modifying the tahsildárs' proposals after some considerable extent in the light of my own knowledge.

84. Before collections began.

85. In the greater part of the sub-division rents are settled annually by applying certain definite village rates to the area cultivated by the tenant. Answer 2 shows that the area sown with *kharif* crops was fully 10 per cent. short, which shortage, as compared with the area in 1306, it will be seen, was much more marked in pargana Bansi (15 per cent.), Talbehāt (13 per cent.), and Banpur (13 per cent.), precisely where the suspensions were largest.

As regards rent suspensions, I think it fair to compare with the preceding year rather than with settlement, as here, where rents are not settled annually, leases are rarely for more than three, and very rarely for more than five, years. Even where hereditary tenants have any fixed "hereditary" rent (which is by no means universal), this rent is more often than not utterly fictitious, the real rent being settled annually on the area cultivated.

It will thus at once be obvious that such a method affords, to a considerable extent, an automatic remission of rent.

The *zamindárs* decided who should receive suspensions, but their proceedings were to some extent checked by the *patwáris*, who had to submit lists showing the recipients of the suspensions. I also did my best to let it be known what proportion of the land revenue had been suspended in a village. I cannot, however, say I place much reliance on the *patwáris'* lists, but in Lalitpur the difficulty is to get tenants at *any* rent; so probably they were not often unduly oppressed. But here I would note that on many occasions, both by large and small landowners, I was told that they would much sooner receive a two-anna in the rupee remission down than a four-anna suspension, even though that might subsequently be remitted. With rents settled annually, or at most short leases, it is clearly almost impossible to collect suspended arrears from tenants. If the attempt is made, the tenant will frequently leave his land and cultivate in the next village, the landlord of which is only too glad to get him. It is eminently a case of "now or never" with a

Lalitpur tenant's rent. In fact, in several villages the suspension, when it was known to be so and not a remission, was refused, and full payment made to avoid the bother of suspending tenant rents and having to pay up later out of their own pockets.

86. See No. 85. In one or two cases I have noticed that suspensions, though taken, were not handed on, and, where such has been proved suitable, action is being taken. But it is very difficult to interfere in such cases. Some tenants' lands have yielded well and they are quite able to pay in full; others can pay nothing, and the matter can really only be determined by an intimate acquaintance with each tenant, his land, and general condition. During the present cold weather I have gone through the *bahī-khātās* of a great many villages, and I consider that, as a rule, the suspensions have been fairly handed on.

With a few exceptions, inevitable in determining the amounts to be suspended in some 750 villages, I think sufficient, and not more than sufficient, relief by suspension was given.

88. I think that at the break of the rains village relief should have been granted somewhat more freely than it was. I think the *nāib* tahsildārs, whose duty it was to put persons on the relief lists, feared the increase in numbers that would have resulted. Grounds for this belief were the results of my own inspections in July. On the other hand, as a result of a suggestion issued that numbers went up more rapidly than was strictly necessary, and during August, I found cases of persons on relief lists who were not strictly in need thereof.

It was these facts that led me to make the suggestion insisting on European inspection of every village once in two months (see No. 32).

I have already noted (No. 34) that the almost total absence of any person not able bodied from the works seems to show that the task exacted was towards the latter part of the period, *i.e.*, after May somewhat too high for the wage obtainable.

89. There were few proprietors, but practically all other classes were represented. As noted before, occupancy tenants are few here, and their status differs little more than nominally from other tenants. The chief class of course was agricultural labourers.

90. People were certainly very ready to come on relief, until they found the works were on the scarcity system, and that no work meant no pay. They then went off—many over the border to Saugor, where the famine system was in force; others to their villages to sit still and starve themselves till fit for village relief.

I think there is little doubt that, if the full famine system had been in force here, there would have been fully 25,000 people on relief works, if not more.

I cannot say for certain (not having experienced a previous famine to any real extent), but believe

they were more ready to come on relief, and attribute that fact to previous experience of relief.

91. At the time of sowing for the *kharif* I was told in village after village that the money lender would not or could not advance as much seed grain as was wanted, and now, when enquiring the cause of sowing not being more extensive this *rabi*, I am told the same thing. I think Rs50,000 *taqavi* for *rabi* seed could have been most usefully and *perfectly safely* distributed in September and October, and would have restored prosperity.

92 and 93. See No. 32. I do not think it would be any practical use for me to attempt to go into any further detail than I have already done.

94. The village *chaukidar* reports births and deaths, which are recorded in his register.

95. Deaths were little, if any, above normal till July, when they first rose; in August, September, and October the death-rate was very high, generally touching 100 per mille or nearly so in most police circles. Excessive mortality was due partly to cholera, but mainly to fever acting on persons debilitated by want, and dysentery, brought on by persons who had long had insufficient food feeding largely on various wild herbs that spring up with the break of the rains. The articles eaten are generally eaten in ordinary years, but not so largely and combined with more wholesome foods. Then in September the young grain (early millets and maize) was ready and was eaten excessively and while unripe. The continuous rain delayed its ripening. The same cause doubtless also added to the death-rate. (The rainfall for August 1900 averaged 20 inches in Lalitpur, and in September it was 10 inches.)

96. I do not think this cause has had any appreciable effect. Water was available, though people had sometimes far to go. Permanganate of potash was freely used wherever cholera was reported, but at no definite intervals of time.

99. See No. 95. The jungles yielded far less fruit than usual.

100. There was very little immigration.

102. There were very few; such as were unclaimed were taken by the Mission Orphanage at Lalitpur (a large number of children were taken in by this orphanage in the course of the famine).

104. Merchants in Lalitpur state that the block on the Indian Midland Railway (I was told that grain frequently took six weeks from the time of delivery at Cawnpore to the railway to reach Lalitpur) in May and June 1900 did raise prices to some extent.

105. No. A large railway tank was being excavated near Lalitpur. When nearing completion, a relief work was opened at Lalitpur. The first day of opening the relief work, owing (I was told) to a rumour that it was to be run as famine work, a large number deserted the railway tank for the relief work. Two days later they had returned to the railway tank, where they got higher wages.

106. Area of land sown with the following crops:—

Crops.										
Year.	Juar.	Small millets.		Till.	Total kharif.	Wheat.	Barley.	Gram.	Total rabi.	Double cropped area.
		Kodon.	Kutki, rali, and phikar.							
TAHSIL LALITPUR.										
Pargana Balabehat.										
Fasli.										
1300	1,182	2,140	1,441	825	7,438	5,650	62	787	6,778	820
1301	2,185	2,191	1,111	1,478	8,613	4,980	95	996	6,891	774
*1303	3,529	5,593		1,109	11,190	207	83	2,620	3,802	425
1306	4,100	2,918	1,004	999	10,267	509	154	1,152	2,078	911
1307	3,450	2,971	1,156	1,295	9,553	441	64	1,869	2,152	529
Pargana Dansi.										
1300	1,400	4,681	6,960	1,602	20,453	2,171	1,620	575	6,370	5,653
1301	1,554	4,811	5,498	2,550	2,040	2,133	1,676	605	6,685	5,902
*1303	1,215	12,205		2,385	21,229	2,423	1,486	1,294	5,297	4,979
1306	2,761	5,433	6,490	3,162	23,047	1,522	1,929	306	5,568	5,533
1307	2,675	4,953	4,310	2,691	19,660	1,098	1,364	286	4,257	3,610
Pargana Lalitpur.										
1300	7,905	13,530	11,752	7,453	48,125	19,614	1,250	8,236	33,740	7,925
1301	11,887	13,233	8,419	9,291	51,627	18,810	1,689	7,389	30,220	6,806
*1303	18,064	34,087		8,192	63,191	1,609	1,222	18,803	17,554	4,939
1306	24,150	14,845	5,698	9,407	62,924	2,562	1,953	3,696	10,376	7,128
1307	29,941	13,358	7,650	9,905	57,649	1,744	1,460	5,271	10,370	5,118
Pargana Talbehah.										
1300	302	3,899	12,315	5,888	34,493	3,794	1,908	489	13,429	12,963
1301	466	3,609	11,065	6,416	32,743	3,890	2,552	631	14,004	13,256
*1303	226	23,086		7,971	36,166	7,514	2,670	2,262	...	12,841
1306	751	5,693	14,845	9,212	41,000	3,084	2,727	435	...	12,407
1307	1,262	4,933	13,763	4,271	35,793	2,315	2,580	286	...	9,798
TAHSIL MAHRONI.										
Pargana Banpur.										
Fasli.										
1300	1,522	9,013	15,191	7,817	40,955	5,157	741	2,236	18,501	10,056
1301	3,184	9,494	12,079	9,437	42,243	9,037	878	2,036	18,157	10,353
*1304	4,939	29,144		10,414	51,493	1,959	1,770	5,063	12,205	8,222
1306	6,578	11,638	12,327	11,227	51,729	3,358	2,044	1,944	12,368	10,723
1307	4,865	10,650	10,852	8,674	44,954	2,113	2,075	2,113	9,970	7,346
Pargana Mahroni.										
1300	1,348	5,777	4,811	2,619	16,771	7,612	241	2,162	11,991	2,242
1301	2,697	5,469	3,761	3,951	19,484	7,315	289	1,896	10,115	2,353
1302	1,775	6,697	3,875	3,177	18,867	359	456	4,531	7,649	2,291
*1304	6,878	9,725		2,953	20,503	492	452	588	1,783	1,439
1306	6,242	5,810	3,447	3,520	21,136	922	551	1,332	3,314	2,335
1307	5,625	5,596	2,746	4,076	20,597	360	267	491	1,412	897
Pargana Maraura.										
1300	3,204	9,708	7,626	5,180	31,354	10,468	411	4,504	21,998	3,056
1301	6,711	10,241	7,048	6,104	37,002	12,430	498	3,835	18,464	3,365
1302	4,726	11,933	6,793	6,073	36,021	747	790	10,706	17,919	3,816
*1304	16,427	20,092		5,339	46,063	417	461	3,023	4,212	1,432
1306	14,972	10,688	6,547	5,531	42,964	1,026	610	5,064	8,003	4,145
1307	13,913	9,274	2,622	6,084	41,107	500	341	3,382	4,847	1,016

NOTES.—(i) In Lalitpur no figures are available for 1302, 1304, and 1305. In Mahroni tahsil none for 1303 and 1305, and for pargana Banpur for 1302 also.
(ii) In the settlement year 1303 in Lalitpur and 1304 in Mahroni (denoted by an *, the area under "grain" includes also that under peas and masur, and is thus not comparable with the figures for other years.

The above tables show the areas of the principal crops in each pargana since 1300 (for each year for which figures are available). They should be taken in connection with the tables in Answer 2. It will be seen that—

- (a) allowing for the decrease in the total *rabi* area in 1307 and in 1303 and 1304, the double cropped area has hardly changed;
- (b) after 1301 there has been an enormous drop in the average under wheat and to some extent of that under gram in the black soil parganas (Balabehat, Lalitpur, Maraura, and parts of Mahroni and Banpur), and a corresponding increase in the area under *juar*. The only non-food crop grown to any appreciable extent here is *tili*, and the area of this shows a tendency to rise rather than fall.

The cause of the drop in the wheat area was the blight resulting from excessive wet of the winters of 1892-93 and 1893-94 (1300 and 1301), while the subsequent droughts so crippled the people that there has been no chance of recovery.

107. (i) To no appreciable extent.

(iii) No, to no appreciable extent. Wages rise at harvest time, but merely temporarily because of the demand for labour.

(iii) (1) (c) Lowering the grain basis from 12 to 10 *seers* (the rates then, I believe, current on the Saugor relief works) in July nearly trebled the number of workers on the works in a few days.

Mr. J. H. Simpson.

*Answers by Mr. J. H. Simpson to the questions of
the Famine Commission.*

1. The outlook at the commencement of the rainy season of 1899 was excellent. The rains commenced early, and 90 per cent. of a normal area was sown with *kharif*. The following statement shows the outturn of the *rabi* and *kharif* harvests for the two previous years and for *rabi* (1898-99):—

<i>Rabi.</i>	1896-97.	1897-98.	1898-99.	<i>Kharif.</i>	1897.	1898.
	As.	As.	As.		As.	As.
Sugarcane . . .	10	12	15	Rice . . .	14	14
<i>Arhar</i> . . .	4	10	4	Cotton . . .	16	13
Wheat . . .	8	12	13	<i>Juar</i> . . .	16	13
Barley . . .	8	13	14	<i>Bajrá</i> . . .	12	15
Peas and gram . .	7	13	10	<i>Urd and mung</i> . .	14	16
<i>Alsi</i> . . .	4	18	13	<i>Til</i> . . .	14	15
Other crops . . .	6	13	15	Indian corn . . .	16	12
				Other crops . . .	16	...

2. *Vide* preceding paragraph. The normal area was taken as that of 1898, as this was the first year when the area of the Gursarai estate was included, and therefore the only one with which comparison of area is possible.

3. The actual rainfall is compared with the normal in the following table:—

		<i>Normal.</i> 1899.		
		Inches.	Inches.	
June . . .		4.17	11.16	The total for 1899 represents 76.36 per cent. of the normal.
July . . .		13.43	10.81	
August . . .		11.40	2.67	
September . . .		5.69	1.85	
TOTAL . . .		39.69	26.49	

(c) The rainfall practically ceased on 24th July, though there were slight showers on 14th, 15th, 28th, and 29th August and 14th September.

(d) The distribution from June to September compared with the average is shown in the following table :—

Name of reporting station	June 1899.		July 1899.		August 1899.		September 1899.	
	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.
	In.	In.	In.	In.	In.	In.	In.	In.
Jhānsi . . .	3.94	13.04	13.16	11.88	11.17	0.49	5.53	0.52
Mau . . .	3.86	17.48	13.84	7.20	11.97	3.43	6.74	3.70
Moth . . .	2.90	12.90	12.26	6.43	9.04	2.03	6.09	1.46
Garotha . .	4.78	12.44	13.60	11.22	10.56	3.82	5.29	1.57
Lalitpur . .	4.30	8.32	12.69	18.44	11.55	3.40	5.31	3.70
Mahroni . .	4.90	9.86	13.17	9.42	11.23	4.68	5.53	1.34
Talbehat . .	3.99	8.20	14.19	10.06	12.46	0.60	4.53	0.82
Naihat . . .	4.68	7.08	14.54	11.80	13.25	2.80	6.48	1.70
Total . . .	33.35	89.32	107.45	86.45	91.23	21.33	45.50	14.81
Average . .	4.17	11.16	13.43	10.81	11.40	2.67	5.69	1.85

4. Fifty-six per cent..

5. (a) As petty cultivators, 50.15 per cent.

(b) As agricultural labourers, 16.49 per cent.

6, 7, and 8. I was not posted to this district till November. The first work started was a test work in Talbehat pargana of the Lalitpur sub-division. It had been started before my arrival.

9. The usual lists of relief works under Forms A-V and A-VI were ready, and surveys and statements of the works on these lists had been prepared.

10. The former, but a programme of village works was also ready.

13. Yes. The following table shows the loans issued under Acts XII and XIX :—

	Act XII.	Act XIX.
	Rs	Rs
September 1899 . . .	6,290	1,500
October „ . . .	29,207	310
November „ . . .	1,435	2,496
December „ . . .	70	10,657
Total . . .	37,002	14,963
GRAND TOTAL . . .	51,965	

30. I consider that, as at present constituted, the application of the table Appendix D-XV to the Famine Code (Provisional Issue, September 1899) leads to a multiplication of the number of carriers,

which is unnecessary and avoidable and leads to frequent abuses.

As at present fixed, the wages of B and C women at both 12 *sers* and 10 *sers* are exactly the same. The natural result is that no woman will dig when these rates are in force.

I would propose, with Mr. Ashton, that women should be allowed the same rates as men all through, and that the classes should be A, B, C, and D, irrespective of sex. When payment is made according to results and women diggers are in separate gangs from men diggers, there is no fear of women earning too little to support themselves. As Mr. Ashton says, when they take to digging, they are better diggers than men are. The wages should be calculated as at present for B men, and 2 pice more given to A, the B men wage given to both B men and women. For the other classes I would suggest the following:—

Works on scarcity principle.

Class of persons on relief work.	14 sers per rupee.		13 sers per rupee.		12 sers per rupee.		11 sers per rupee.		10 sers per rupee.		9½ sers per rupee.		9 sers per rupee.		8½ sers per rupee.		8 sers per rupee.		7½ sers per rupee.	
	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.	Maximum.	Ordinary.
A Men only	8	7	10	8	10	8	11	9	12	10	12	10	12	10	13	11	15	12	15	12
B Men and women . .	6	5	8	6	8	6	9	7	10	8	10	8	10	8	11	9	13	10	13	10
C Men and women . .	5	4	6	4	6	4	6	5	8	6	8	6	8	6	9	7	10	8	10	8
D Children	4	3	4	3	4	3	5	4	5	4	5	4	5	4	6	5	6	5	6	5

FORM D-XV.

Difference.

<i>Sers.</i>																				
13	.	{	Maximum .	{	B Women, 2	}														
					C " 1															
					B " 1															
			Ordinary .	{	C Men, 1	}														
					B Women, 2															
12	.	{	Maximum .	{	B " 1	}														
					C Men, 1															
					C Women, 1															
			Ordinary .	{	B " 1	}														
					B " 1															
					B " 2															
11	.	{	Maximum .	{	B " 1	}														
					B " 1															
			Ordinary .	{	B " 1	}														
					B " 2															
10	.	{	Maximum .	{	B " 2	}														
					B " 2															
			Ordinary .	{	B " 1	}														
					B " 1															
9½	.	{	Maximum .	{	B " 1	}														
					B " 1															
			Ordinary .	{	B " 1	}														
					B " 1															

The result would be an enormous increase in the amount of work done, as the present difficulty of the multiplications of carriers at the expense of diggers, and consequent waste in a long lead in order to provide for the carriers, would disappear.

32. I believe that, given a strong European executive staff, and the allowance of a free hand with village relief, almost any famine could be met by works conducted on the scarcity system. Such relief would be more expensive per head of persons relieved, but it would prevent the enormous waste which must occur when thousands flock to works with no intention of doing the work, and would, I think, be undoubtedly the cheaper form of relief

in the long run. I am firmly of opinion that, had the full famine system been employed in Jhānsi and Lalitpur during the scarcity, the whole country-side would have flocked to the works and our numbers probably have multiplied themselves by ten.

69. Village relief from 26th January 1900, poor-houses from 15th December 1899, were the only forms of gratuitous relief employed in this district.

70. The only test employed in determining recipients of gratuitous relief was physical condition in the case of village relief, and application for admission in the case of poor-houses. The former appears to me the only test fairly applicable for village relief.

Two poor-houses were opened—one at Jhānsi and one at Mahroni. They were never at all full.

72. Persons who refused to work in relief works got no pay. None were sent to poor-houses. Persons unable to earn their wage on works owing to physical unfitness, were drafted on to village relief lists.

73. Persons in poor-houses were regularly wooed and drafted on to relief works or village relief as seemed necessary. The former frequently bolted on the way to the works 74A. The poor-house ration was the code ration. It was raised in the case of hospital inmates. Charity supplied small luxuries to inmates of the poor-houses.

75A. The village relief lists were originally drawn up by *patwāris*, but were all checked before relief began by superior officers not below the grade of *nāib tahsildār*. They were checked frequently. The term aimed at was once every ten days. This, however, was not always possible, especially after the commencement of the rains. Special *nāib tahsildārs* were posted to both tahsils of Lalitpur and to Jhānsi tahsil.

76. Payments were made daily by village headmen or *lambardārs* at the homes of the people.

77. To none.

82. Suspensions were given liberally as follows:—

Tahsil.	Kharif.	Rabi.	Total.	Percentage of total revenue.
	<i>R</i>	<i>R</i> a. p.	<i>R</i> a. p.	
Jhānsi	30,442	8,704 0 0	39,146 0 0	32.05
Mau	7,907	2,643 0 0	10,550 0 0	8.13
Moth	10,152	8,619 0 0	18,771 0 0	15.81
Garotha	10,738	6,115 9 6	16,853 9 6	15.76
Lalitpur	13,717	7,044 0 0	20,761 0 0	26.84
Mahroni	10,674	6,731 0 0	17,415 0 0	27.34
TOTAL . . . . .	...	...	1,23,496 9 6	19.97

83. Suspensions were based on a consideration—

- (1) of the area under cultivation in the village compared with the area at settlement ;
- (2) of the outturn in annas compared to a normal outturn (16 annas).

84. Suspensions were determined upon before the revenue became due.

85. Suspensions of rent followed automatically. *Zamindárs* were supposed to file lists of suspended rents. When they did not, suspensions were given rateably to all cultivators.

86. No.

With regard to suspensions generally, I would suggest the expediency of remission at once rather than suspensions. It is difficult to collect famine arrears, and in any case, if the revenue is fairly assessed, it would seem a mistake to burden villages already weakened by famine with any addition to their revenue in the years immediately following it. The reasons for a carefully made suspension should be sufficient to warrant a remission, and the cultivators are much more likely to receive the relief if the remission be granted at once than if it be postponed and subsequently a portion only remitted. In the Lalitpur sub-division certain cases occurred of *zamindárs* paying in suspended revenue at once rather than having its payment hanging over them for the future.

88. *General*.—The relief afforded was never excessive. The object in view was to restrain the relief to the minimum necessary to tide the people over the period of scarcity. For this purpose it was sufficient. Had the distress become more marked, as it seemed likely to do towards the end of June, it would have been necessary to enlarge very extensively the scope of relief operations, and the full famine system would have been resorted to.

90. From my experience of famine in Jhānsi in 1896-97 it is my opinion that people were much more ready to come on relief than was the case in that famine, certainly than in the earlier portion of that famine. The reason would appear to be that, owing to the large number who were forced to seek relief in that famine, the caste feeling among the higher castes of reluctance to accept relief has been largely broken down. Given absence of necessity for relief for ten or twelve years, the old feeling will, I believe, grow up again and the temporary lowering of the caste standards be counteracted.

91. All over the district the contraction of private credit has been most marked at the time of the *rabi* sowings. The area under *rabi* has decreased very heavily even upon last year's area, itself already small, and this is everywhere due to the fact that the village grain dealer has refused to lend grain for the sowings. This is not altogether the result of the present famine; it is largely due to the long series of adverse cold weather seasons, beginning with rust in 1893-94 and continuing with more or less severity ever since. Considering, however, the present magnificent promise of the *rabi* crop, the contraction of area becomes peculiarly unfortunate.

92 and 93. In the case of the scarcity system, I would answer the first question in the affirmative. In the case of the full famine system in the negative.

The scarcity system is, in my opinion, sufficient for all but intense famine if the village relief is worked properly. It is impossible, in my opinion, to select for admission to relief on works, and any attempt to do so would open the door to widespread speculation. I would therefore keep the works, as at present, open to all comers, on the scarcity system. Village relief is, in its very essence, a selection of admission to relief, and this implies the necessity of responsible officers for its effective working. We were fortunate in this district in having special *náib* tahsildárs for the work, but even an officer of this standing does not appear to me to be sufficiently responsible for the work. I found a tendency to vary the numbers in relief with reference to the opinion of the superior officer rather than to the necessity of the tract administered, which was difficult to combat. If the suggestion were offered that numbers were going up rather fast, it would mean a prompt fall in the numbers on relief, until a remark upon the peculiarity in a fall at that particular time resulted in a notable increase. I believe that, if in a famine district the works were run on the scarcity system and one European officer (Assistant Magistrate, Assistant to District Superintendent of Police, Staff Corps officer, or other) were supplied for every—in Bundelkhand—150, in the rest of the North-Western Provinces 250, villages, practically any famine could be run with greater efficiency and economy than under the comparatively easy, but expensive, methods of the full famine system. The task could be varied with respect to the physical condition of the workers; and the rate of payment for diggers, male and female, would have to be slightly higher. The whole of the dependant class would be relieved in their home if they were really in need of relief—a fact which could be ascertained by their physical condition and that alone. It is useless to attempt to enquire into income and means of support in times of famine. The true index to the necessity for gratuitous relief is, in the case of each individual, his or her physical condition, and nothing further. Women who, by the custom of the country, are prevented from appearing in public must be treated differently, but the number of these is, in Bundelkhand, extremely small.

94, 95, and 96. These questions appear to refer to works and the mortality on them.

With regard to the district mortality, the figures are very striking.

The following is the death-rate for the district from October 1899 to December 1900.—

October 1899 .	2.10	June 1900	3.20
November „ .	2.15	July „	2.98
December „ .	2.11	August „	6.07
January 1900 .	1.96	September „	8.35
February „ .	2.09	October „	6.42
March „ .	2.00	November „	4.21
April „ .	1.76	December „	3.17
May „ .	1.95		

It will thus be seen that it was not until the rains were well established and cholera had commenced that the death-rate began to rise. It did so then with very great rapidity. In October *kodon* was selling in the village at 40 *sers* to the rupee, and yet the death-rate was 6.42 per 1,000. This can scarcely be a famine death-rate. The season was very unhealthy, fever being rife and extending well into November. I was absent from the district during the months of September and October and so cannot speak from experience, but, from information I have received from native gentlemen of the city and district, it would appear that every house had its quatum of sickness. I have not the figures for Central Provinces districts, and so cannot compare them, but I think it will probably be found that this district's experience has been found the same there.

104. On this point I heard frequent complaints. The Bundelkhand Grass Farm (Mr. J. H. Abbott is the Manager) found, I know, great difficulty in securing wagon accommodation for its fodder. I do not think that the local price of food was ever affected by failure on the part of the railways; the only effect of the shortness of the supply of railway stock was to reduce the profits of those who had made contracts for fodder grass from this district.

104A. I received weekly post-cards from each railway station, giving the total amounts of import and export for the week: I did not receive any information of imports by road, and so am not able to answer the last portion of the question. The scarcity having been limited to the west and south of the district, general statistics on the point would be of little use.

105. There were no such complaints.

106. A very marked feature of recent years has been the large fall in the area under wheat and other valuable *rabí* crops. The total area under cultivation has of course declined, but the decline in the *rabí* area, especially in Lalitpur (*vide* Mr. Silberrad's note) is out of all proportion to that of the total area. I append a statement showing for Jhānsi proper the changes in cropped area for the last years (*vide* statements I to III, Appendices).

The reasons for this change are clear. *Rabí* cultivation is not only more expensive as requiring more ploughs, more labour, and more seed, and seed more expensive than that for the *kharíf*, but it also requires more labourers. Its attraction was the higher prices of the *rabí* grains and their richer outturn.

Now for a series of years the district has been peculiarly unfortunate in its weather for the *rabí*, and from the year 1893-94 until this year (1900-1901) there has not been a single *rabí* crop which gave a normal outturn. The natural result in any case would have been to cultivate more *kharíf*, as the latter is a much safer crop and the percentage of failure is smaller in its case.

Added to this natural tendency, there have been a contraction of credit, a decrease in population, and, specially in the labouring population, a decrease in the number of cattle and an extension of *káns* (which specially attacks the finer soil, in which the *rabí* crop is cultivated). The inducements to the simpler *khárf* cultivation thus became very marked indeed. Yet another reason for the change lies, perhaps, in the approximation of prices of the *khárf* and *rabí* grains.

108. The only point upon which the provisions of the Famine Code were departed from was in the test works, which were under the Public Works Department and had a regular "large work" staff. This departure was, however, I consider, justified by the results, and it is recommended by the Famine Commission of 1893 (*vide* Report, page 319, section 530, II).

110. Officially, non-official agency was not made use of, but the Revd. Dr. Holcomb, of the American Presbyterian Mission, conducted a campaign of relief among the weavers of Mau-Ránpur, who, though not famine-stricken, felt the pinch of higher prices severely, and Mr. Blanchfield, the Forest officer, administered effectively a small charitable fund which was raised locally for the benefit of the Saherías.

With regard to non-official assistance, I am of opinion the missionaries might be enlisted as helpers in famine time in numbers, with very good effect. I see no reason why they should not be put in charge of poor-houses or of village relief—posts which they would probably accept with readiness, and in which they would do excellent work. The only difficulty I can foresee would be in the possibility of a disregard of central authority. As, however, their services would probably be asked for by the Collector, and he would know them beforehand, he would certainly only accept the services of such as would satisfy him upon that score.

Total cultivated area.

* The Gursarai figures are included in these years.

STATEMENT II.

PARGANA.	Kharif, 1907 fasli.			Rabi, 1907 fasli.		
	Total quiet.	Snsuspended.	Percentage suspended.	Total quiet.	Snsuspended.	Percentage suspended.
	R a. p.	R a. p.		R a. p.	R a. p.	
Jhānsi . . .	63,459 5 0	30,442 0 0	47·98	53,631 8 0	8,704 0 0	14·83
Mau	67,293 7 0	7,907 0 0	11·75	62,468 11 0	2,643 0 0	4·23
Moth	53,961 0 0	10,152 0 0	18·81	64,564 8 0	8,619 0 0	13·35
Garotha . . .	43,380 5 2	10,738 0 0	22·20	53,571 1 2	6,115 9 6	1·44
TOTAL . . .	2,33,090 1 2	59,239 0 0	-	2,44,235 12 2	26,031 9 6	-

STATEMENT III.

Total areas of four tahsils—Jhānsi, Mau, Moth and Garotha.

YEAR.	Judr.	Kodon.	Kutki, ralt, phikar.	Till.	Other crops.	Total harvest.	Wheat.	Barley.	Gram.	Other crops.	Total rubi.	Double cropped area.
Faski.												
1297 . . .	} Figures not available.											
1298 . . .												
1299 . . .												
1300 . . .												
1301 . . .	73,567	12,733	12,432	25,427	62,894	187,053	14,207	4,211	66,521	140,711	225,650	16,501
1302 . . .	64,337	14,767	10,190	27,827	105,579	222,750	26,175	5,231	42,253	134,372	203,031	27,797
1303 . . .	53,551	19,897	14,419	38,454	130,090	256,471	15,581	9,186	81,790	95,154	201,711	41,404
1304 . . .	38,456	18,839	16,631	23,513	93,063	190,507	9,905	5,612	135,159	32,554	183,230	20,724
1305 . . .	56,185	19,490	22,188	27,387	119,685	244,935	11,359	6,203	52,894	23,125	98,550	24,966
1306 . . .	55,023	15,675	25,721	26,851	112,655	245,925	10,066	6,360	67,418	24,649	103,493	26,225
1307 . . .	78,353	18,118	20,154	31,872	110,878	259,375	11,295	6,949	90,650	39,053	147,857	29,601
1308 . . .	72,355	17,059	13,066	30,778	98,374	231,632	11,193	6,343	90,585	36,293	144,369	23,608

Total area tahsilwár.

YEAR.	Jhánsi.	Mau.	Moth.	Garotha.	TOTAL.
<i>Fasli.</i>					
1300	319,704	280,567	155,017	221,438	976,926
1301	319,713	280,768	155,008	221,442	976,931
1302	319,715	280,737	154,837	221,437	976,726
1303	319,715	280,734	154,828	197,985	953,262
1304	319,715	280,737	154,823	197,985	953,265
1305	319,715	280,734	154,828	197,985	953,262
1306	319,716	280,736	178,149	297,945	1,076,546
1307	319,718	280,736	178,749	297,939	1,077,142

} The Gursani figures are included in this.

MR. HUMPHREYS, DEPUTY COMMISSIONER, HISSAR.

The President.—When did you join the Hissar district?

A.—First in January 1899, and took over charge of the whole district in March of that year.

Q.—What was the condition of the district at that time?

A.—The district had then to some extent recovered from the previous famine. According to Major Dunlop-Smith it needed five average harvests to completely recover. In 1899 the *barani kharif* was practically *nil*, the principal crop being *bajra*; and the *rabi* following was the smallest on record, only 112 acres of *barani* being harvested in the whole district. The rains began well on June 15th 1899, then in July they fell off rapidly, and after the 15th practically no rain fell. The crops never got into ear and were no use for fodder. It was remarkable how long the crop kept green and the people kept hoping they would get something.

Q.—Do you irrigate from wells?

A.—Very little. The wells are from 60 to anything over 300 feet deep. *Kachha* wells are used to a certain extent where the water is 60 to 90 feet below surface. There are wells five or three feet in diameter. A good many were made in 1899, *takāvi* being given to the extent of over a lakh between September and December. The money was mostly usefully expended.

Q.—Could you have spent five or six times the amount?

A.—I do not think so.

Q.—Did you require security of the holdings?

A.—Either that or collateral security by some other third person.

Q.—Did you try the plan of joint security of the people of the village?

A.—That was not worked. The people have no public spirit. We found no difficulty in getting security from anyone who really meant to dig a well.

Q.—An advance of Rs. 1,12,000 over an area of 5,000 square miles is not much?

A.—There is only a small tract in which wells can be made, one-tenth of the district.

Q.—When did you first apprehend that you were in for difficulties?

A.—August 1899.

Q.—What was the first symptom; the contraction of private charity and wandering?

A.—There was not much contraction of charity; but there was a certain amount of immigration from Rājputāna; there was no aimless wandering although the arrival of beggars became more noticeable in October.

Q.—Had you poorhouses?

A.—Yes; five, one for each *tahsil*. The two largest would hold a thousand, two about 400 and the other about 150. We tried at first to run them on the same lines as in 1896-97 by having Honorary Superintendents, but the work was too heavy to expect any man to run them in that way. We had *muharrirs*, cooks, *bhistis* and sweepers.

Q.—Had you a hospital attached and a Hospital Assistant?

A.—Yes.

Q.—Had you cholera in your poorhouses?

A.—In two, Hissar and Bewani. It must have been imported, but it did not last long, and was never more than sporadic.

Q.—What classes came to your poorhouses?

A.—The poorer classes, and also people from Bikanir and Rājputāna. They were practically residential places; but when people recovered strength they were sent off to works. The mortality was fairly heavy, but not, I think, more than was to be expected.

Q.—What other action did you take besides establishing poorhouses in the early months?

A.—At the beginning of September we started a test-work in each *tahsil*—all of them road repairs under the Civil officers. We had a certain amount of money in our District Board and started these as District Board works. It was not contemplated to put them under the Public Works Department. But if I had to do the thing again I think I would put them at once under the Department.

Q.—What system of payment had you?

A.—A given task for a given payment. If the whole task was not done, the minimum wage was given; there were no payments to dependants and no Sunday wage. But numbers went up so quickly, and it was so evident that we were in for a bad famine, that I got permission from the Commissioner to count the works as relief works in the week beginning 11th September when our numbers rose over 20,000. We kept to our own ordinary road works; and it was not till the end of October that the Public Works Department came in, and we had to open more works. We had great difficulty in getting establishment; especially officers to put in charge, *i.e.*, men of the *Naib Tahsildār* class. We were not badly off however for discipline. On one work we had 5,000 or 6,000 people, with a *Naib Tahsildār*, two Sub-Overseers, men who applied to the Public Works for employment, two or three *mistris*, *muharrirs*, and a Hospital Assistant.

Q.—How did you arrange for the organization of work?

A.—We had gangs, the formation of which was under the supervision of the officer in charge. The *muharrir* entered the names of people as they came on. The measuring of work was done daily by the Sub-Overseers, and payment was made to the individual bi-weekly.

Q.—But if that was done it would require a careful and good establishment ?

A.—We were very fortunate. All my *Tahsildars* had been through the 1896-97 famine and were well up to it, and a certain number of temporary people had also been through it.

Q.—At the end of October you found yourself with over 50,000 people on works; you had a large number of children; 12,000 dependants. Then did you call in the Public Works?

A.—Yes.

Q.—What change was introduced?

A.—Practically none in the system.

Q.—Were people satisfied with the minimum wage?

A.—We had no difficulty with that.

Q.—How was that?

A.—It was the duty of the mate of each gang to keep them up to the mark. He was chosen by the gang and got two pice extra. If he did not make the gang work, he was fined, and if it occurred several times, he was dismissed. But as a rule the gangs worked up.

Q.—Did the Public Works continue with the men you had?

A.—Yes. But they had Sub-Divisional Engineers, inspecting officers and an Executive Engineer. There was very little change in the organization. The works undertaken by the Public Works were large tanks. We had fixed camps and more organization for sanitation than we had had on the roads. The charges were independent in position and organization. The same system of payment was followed except in one or two instances where payment by results was introduced, as a special case for the Rajpoots.

Q.—How did the two systems compare in point of discipline and industry?

A.—I did not see any difference. On the tank on which we had payment by results it was limited piece-work; they were not allowed to earn more than a certain amount. Practically the same amount of work was got out of them.

Q.—Had you kitchens and provision for dependants on payment by result works?

A.—No; no kitchens properly so-called. We had arrangements for giving milk to the children—practically a part of the hospital. Up to the end of October we gave cash doles to dependants. We did not have these doles on payment by result works; in that case the wage was calculated to include provision for dependants. They were allowed to earn above the Code wage—twenty per cent. and $\frac{1}{3}$ th for Sunday. They did not do twenty per cent. over the task, but got twenty per cent. extra for the full task.

Q.—You raised the wage. That was payment for dependants in another form?

A.—At the same time, the amount of work they did affected the payment for dependants, *pro rata*.

Q.—How long did that system last?

A.—All the time the tank was open. That was a special work in the Hissar tahsil. It lasted eight or nine months.

Q.—Did you ever see dependants on the tank?

A.—Yes.

Q.—If they had no dependants, you gave the people more than you ought to have done. I am surprised you did not have more people on that tank?

A.—No; it was not very popular.

Q.—Had you such a system of payment in excess of the Code wage on the works?

A.—No; except in the case of the Ranghars on the Rangoi Canal. People had no task whatever fixed. They were allowed to make their own gangs and according to the size of the gang they had a length of the canal given them, and they were paid at a given rate for the amount of work they did—a rate more or less according to the Code maximum. It was practically an ordinary contract work—going outside our famine relief system altogether.

Q.—Did the people get more or less than they would have got if the Code rates had applied?

A.—Very much the same. The rates were to a certain extent fixed with reference to the Code rates and the price of food. We did not have very bad famine there.

Q.—By the beginning of January you had settled down under the Public Works *régime*, you based your wages on the price of grain—19 *chhataks*, 14 and 10 with 12 for dependants. And you saw reason to reduce them?

A.—Yes; from December to March they were getting the full wage. Then in March it was 18, 13 and 8 with 10 for adult dependants and 7 to 5 for a child dependant.

Q.—Had people been saving or getting too much?

A.—The idea was that the rate recommended by the Famine Commission was rather high but that in the cold months they required more food, and it was advisable then to give them the full amount. The reduced wage kept the people in good condition.

Q.—Looking back on the whole business, do you think 8 *chhataks* is enough for a working child?

A.—It is difficult to say, because one never knows whether the amount given is eaten. They pooled their wages in the family. I would not reduce it any more.

Q.—But if the working child was acting independently?

A.—I saw nothing to lead me to suppose that 8 was insufficient. Eight to 12 were our ages, but it was more by the look of the child that we judged the age.

Q.—Would you be disposed to accept the lowest age as 10?

A.—Yes.

Q.—Is 10 *chhataks* enough for the adult dependant ?

A.—It is pretty fair.

Q.—You did not notice any deterioration ?

A.—No.

Q.—Then what is your reason ?

A.—Simply the amount of food it represents. I am disposed to give 11 or 12.

Q.—Had you many adult men in the earlier class ?

A.—On the tanks there was a special arrangement for them. We had a long lead and the number of carriers to diggers was usually nine to one; a tank measured 1,200 feet by 600 and the lift was great.

Q.—Did you work out the proportion of carriers to diggers according to Mr. Higham's tables ?

A.—Yes; but it was impossible always to get the proper proportion : so when the gang was made up, the surplus diggers were entered as $1\frac{1}{2}$ carriers and the working children as $\frac{1}{2}$, and the task fixed accordingly.

Q.—Did you think 13 *chhataks* was enough for carriers made out in that way ?

A.—Yes. For the cold weather I could give 15, but afterwards 13.

Q.—Would an average of 14 keep them right for the whole time ?

A.—Yes.

Q.—Because if you say 13, you have only a *chhatak* between them and the dependants who sit idle. Is 18 sufficient for diggers, or is 19 required ?

A.—Sufficient when the cold is not excessive.

Q.—You had no kitchens on your works, but you had a great number of children, did you ever find the children getting fever ?

A.—Yes. Those that were so got their milk extra every day until they got into better condition, and I do not remember any of them relapsing again.

Q.—Were the cash allowances to dependants paid daily ?

A.—Bi-weekly.

Q.—Did they leave the works and go home when they got their allowances ?

A.—On the tanks there were some who lived in the camps and some who went to their villages: we had no compulsory residence. It was only the Sunday wage which induced some people to remain in camp, but in some instances the people came such distances that they could not have gone home.

Q.—Had you to complain of a person coming on Saturday to get the Sunday wage ?

A.—At first we tried to enforce the rule that a person must work a whole week before he got the Sunday wage, but I cannot say how far that was carried out.

Q.—Had you muster-rolls ?

A.—Yes; two roll calls daily; but we did not find the abuse of the wage by people coming on Saturday and going away on Monday of any great extent. The Sunday wage is after all very small.

Q.—What was your organization with regard to gratuitous relief ?

A.—We had circle inspectors. We began with village lists in October made out by the *tahsildars* and *naib tahsildars*, not by the *patwari*. We tried to keep everything out of the hands of the *patwari* as much as possible.

Q.—Did you relieve the *tahsildar* of his ordinary duties ?

A.—No; we also had a relief officer of the extra assistant class for the *tahsil*. The *tahsildar* had to do both his ordinary functions and famine work; he was under the orders of the special officer. Of course, ordinary work goes down a good deal.

Q.—Of what stamp was the circle officer ?

A.—*Zaildar*. There were 7 to 15 villages in a famine circle. We had one *muharrir* for each *tahsil*. The reports came in and were entered in the register by these famine *muharrirs*.

Q.—When were your lists ready ?

A.—In November; and we commenced giving relief on the 1st December.

Q.—Did you adhere strictly to the categories of the Code or did you interpret them liberally ?

A.—If a person was known to be actually in want of relief he was brought under one of the heads of the Code. Where we were a little lax at first was with regard to people of the better class and *parda-nashin* women.

Q.—You had on gratuitous relief at the end of December 33,000 against 41,000 on relief works; in January 64,000 on work, 40,000 on gratuitous relief, including dependants. In February 97,000 on works and 60,000 on gratuitous relief; March 72,000 on works and 60,000 on relief; April 59,000 and 49,000—so that your numbers on gratuitous relief were very high compared with the numbers on works. Is it explainable on the ground of immigrants or people sending their women and children as dependants on works and themselves remaining at home ?

A.—No; we never had that: but there were several reasons. In many cases the men having left the district in search of work, their families were left behind. And then people went away with their cattle and also left their families behind.

Q.—The large proportion of the people on gratuitous relief to the people working on works is a peculiar feature of your famine administration. The value of the work done was very small, I suppose, compared with the expenditure ?

A.—It would be over half.

Q.—Has the cost of children dependants been charged to the works?

A.—Yes.

Q.—When did you have cholera?

A.—In the beginning of December.

Q.—What were your arrangements for water-supply on works?

A.—The wells were cleaned out and disinfected and no one was allowed to draw water except people appointed for the purpose. We had cholera somewhere in the district well on into June. It did not stop long in any one place. It was in the villages afterwards. The first idea was to stop the work and split up the people into sections and let the cholera die out. Afterwards on big works we kept them on in small camps, no camp containing more than a thousand, and where cholera appeared the camp was disbanded.

Q.—Had you any system arranged beforehand of village works?

A.—We had a programme but never used it, because of the difficulties of organization; and on the big works we had a better system of control.

Q.—Tanks could be dug and cleared out in your villages; there is still room for that sort of employment?

A.—Yes; considerable.

Q.—Could you not have employed the people on such works without any cost of establishment to yourselves?

A.—One difficulty in Hissar is that we have very few educated men; they are all petty *zamindars*.

Q.—Could you not have utilized these men? They would have got their own relations occupied and the ordinary labouring population of the village?

A.—There would be no control of the work.

Q.—Control of the money?

A.—There would be great trouble with the payment of wages.

Q.—But they would be dealing with their own brotherhood. If they had done the work and did not get paid you would very soon hear about it. The common hangers-on would not be allowed on the work, but would go on the public works, and you would get more out of them than out of those unaccustomed to work. It is worth trying; it has been tried with success.

A.—Yes; but in that case we should have had double the numbers on relief.

Q.—It does not work out in actual practice that way?

A.—Our idea was to keep the people all together, not to let them get into the villages and die of cholera.

Q.—Was there any speculation with regard to cash doles?

A.—It almost invariably reached the proper person. That was one of the notable things. We had the assistance of the *punchayat*. I am in favour of securing the assistance of local agency in that way. We ourselves do not possess the requisite local knowledge.

Q.—The more you trust them the more they respond?

A.—Yes.

Q.—That ought to encourage you to use village works?

A.—Yes; but the thing was you could not trust them to pay wages properly.

Q.—Was your rains policy different from what you followed in April, May and June? I notice you can go on with your works in Hissar in the rains.

A.—On some. There was a good deal to be done in the way of trimming the banks in the excavation of the deep parts of the tanks. There was practically no change in the system in the rains. July 29th was the opening of the monsoon. We did not need to stiffen tasks; the people went off splendidly and set to work to cultivate at once. They had very few cattle but they managed, and about 75 per cent. of the normal *kharif* was brought under cultivation. There was no complaint of deficiency of labour. We have no longer any people on relief.

Q.—What is your system of suspension of revenue? Did you make any proposals for suspension in December 1899?

A.—Yes, for about five lakhs; the revenue of the district is 7½ lakhs. My proposals were sanctioned. The fact was notified through the *tahsildars*. The people have got into the way of expecting it since the last four years: and the 25 per cent. was only collected from the substantial people who could pay.

Q.—How did you ascertain them?

A.—From the local knowledge of the *tahsildars* and the revenue assistants. I went through the records of each village; they made proposals and I gave final orders. I do not remember any complaints as to the unfairness of the *tahsildars'* proposals. A good deal of land has passed into the hands of *banias* and we came down on them, where they were able to pay, of course.

Q.—Do you regard the *bania* as a man to be made to pay up in any case?

A.—No; only if he is a man with other means of income.

Q.—You have a system of suspension for ordinary vicissitudes of the seasons; when do you remit?

A.—We have not remitted anything up to the present. The whole district owes something like 10½ lakhs, not including *takavi*. We have advanced 10 lakhs of *takavi*. *Takavi* is usually recoverable in four years except in the case of *pucca* wells, when it is recoverable in 10 years. We are not considering the remission of the suspended revenue at present; it depends on the next year. The recoveries will be spread over more than one year.

Q.—Is there any real object in dividing revenue payers into rich and poor with reference to suspension? Is that a rule of the Financial Commissioner?

A.—Yes: it is binding upon the officers. The terms of the rule is that well-to-do landowners should not be given suspension in the same way as poor ones.

Q.—Have you yourself worked that rule?

A.—Only to a certain extent. It would be impossible to work it in its entirety. We can only go into large *mālguzāri* villages and villages where considerable shares are owned by one wealthy person.

Mr. Nicholson.—What is the nature of the tanks excavated?

A.—Low ground reservoirs for the storage of water and we hope to be able to irrigate, and they will help no doubt to improve wells below them. They are 16 feet at the deep end and 10 feet at the shallow.

Q.—Are you going to stock any fish?

A.—We have not thought of it. Canal water can be run into them and these can be easily stocked.

Q.—How many cattle have you lost?

A.—Roughly 60 per cent. of working cattle.

Q.—What is the area of the *rabi* cultivated?

A.—Over the average; very nearly enough to pull up the amount we are short of in the *kharif*.

Q.—Which is most difficult to cultivate, wheat or cotton?

A.—Cotton is only grown in the canal lands, and there is very little wheat in the *rabi*. They grow mostly gram and barley.

Q.—Perhaps there was a surplus of cattle before the famine?

A.—I think not, but they managed as the rains did not come in all districts at the same time, so that we were able to move cattle from one village to another.

Q.—Did you give many *takāvi* loans for fodder?

A.—There were no loans for fodder.*

Q.—How were the cattle kept alive?

A.—They managed very badly, there was a certain amount of jungle products which they ate; and some of the wealthier men could spend a little money on them. A lot were taken away to Karnal and to the Dūn, where, however, a lot died. We got a concession from Canal Department in September 1899 to allow the cattle to graze on the canal banks and shoots of the trees.

Q.—Have you a suggestion to make as to the storage of hay in ordinary years?

A.—I do not think we could do it. We have the *bajra* and *juār*, and if they have any sort of crop at all they have a good stock from the stalks. They do not take the trouble to store hay.

Q.—Had you many deserted children or orphans on your hands?

A.—Not many. Only 70, I think, during the whole famine. We put them into poor-houses and there was a charitable orphanage opened by the Arya-Samaj. A certain number, mostly at the end, were handed over to missionaries. We had applications from a lot of people. Our Code is under revision, but I do not think it will be necessary to have separate orphanages, not more than one for a district; they can be looked after in the poorhouses.

Mr. Bourdillon.—Have you a numerical estimate of the immigrants?

A.—At the beginning we had a certain number, but later on the *darbārs* did very well for their people, and they were all sent back; they were from Rājputāna and Jhind. They did increase the mortality, but they did not disturb us much.

Rao Bahādur Syam Sundar Lal.—Had you grants from the Indian Famine Charitable Relief Fund?

A.—Yes. At first we used it for the respectable people and *purda-nashin* women; and people for whom we had strained the provisions of the Government Code we transferred to this charitable list; and afterwards, when the rains came on, for seed and cattle.

Q.—Is there any custom of growing green fodder round the wells for cattle?

A.—There is only about enough for the well cattle.

Q.—Are there large tracts in your villages where grass can be grown and stored for fodder?

A.—There are waste tracts, which give *pāla*, for example, which they save carefully, but there are strict rules against cultivating such tracts. People would never agree not to let the cattle graze there.

Q.—Is there much scope for the construction of irrigation *bunds*?

A.—No.

The President.—As to the Jhelum canal work which had 11,000 workers: you say it was successful. But I notice that only half of them returned. What became of the other half?

A.—6,000 were returned at Government expense, 1,300 found their own way back, about 1,000 died of cholera, and about 500 remain there at work, and about 2,500 remain of whom we know nothing. A certain number were residents of Jhind, Patiala and Bikanir and probably found their way back.

Q.—Did the people agree to go willingly?

A.—Yes.

* Except in connection with the loans for *kachcha* wells.

Mr. R. Humphreys.

Answers of Mr. R. Humphreys, Deputy Commissioner, Hissar, to questions drawn up by the Indian Famine Commission, 1901.

1. See Chapters 2 and 3 of my District Famine Report up to paragraph 11.

2.

	Acres sown.	Harvested.	Failed.
Kharif, 1897	1,656,179	1,295,052	361,127
" 1898	1,719,811	381,624	1,338,207
" 1899	1,466,781	108,000	1,358,781
Average	1,669,528	1,195,448	474,080
Rabi, 1898	851,280	681,156	220,124
" 1899	817,696	142,053	176,643
" 1900	103,851	94,704	9,147
Average	680,145	589,665	90,480

The average is based on average of Kharif 1890 to Rabi 1895, which were good years.

3. (a) *Vide* paragraph 2 of my Famine Report.

(b). *Vide* paragraph 10 of my Famine Report.

(c). Practically in July.

(d). Extremely short in Sirsa and Fatehabad.

4. Sowings were 13 per cent. less than normal; area harvested was 8 per cent. of normal area harvested in khari.

5. *Vide* paragraph 11 (f), Famine Report.

6. *Vide* paragraph 11, Famine Report, also paragraphs 15 and 18.

7. *Vide* paragraphs 10 and 11, Famine Report.

8. *Vide* paragraph 15, Famine Report.

9. (a). *Vide* paragraph 14, Famine Report. Surveys and estimates of cost had not been made out in every case.

(b). No. Lists of candidates were not kept up beyond the usual lists of candidates for the various posts in the ordinary district establishment.

10. Large works. A programme of village works was ready in reserve.

11. (a). Test works commenced September 1st, 1899.

(b). Poor-houses commenced fourth week of October.

(c). Kitchens were not employed.

(d). Organisation of private charity. See reply to question 12.

(e) Opening of Canal banks for grazing, 14th September 1899.

Humphreys—1.

12. (a). *Vide* paragraph 79, Famine Report. It was started on December 1st, 1899.

(b). Nothing was done or was possible beyond to try and induce people to take advances for digging tanks. Only one advance was taken in part, and was not a success.

(c). Meetings were convened and Committees appointed in Bhiwani on 3rd January, and in Sirsa on 18th November, 1899.

Local Committees in affiliation with the Lahore Central Committee were formed in February 1900.

(d). All officers down to the Zaildars and Circle Inspectors were responsible from the first to report on the condition of the people should anything come to their notice to warrant its being reported.

13. Loans were made available for digging tanks, but were not availed of : for reasons *vide* paragraph 8, Famine Report.

Advances were given during the autumn of 1899 for the purpose of making *kacha* wells, *vide* paragraphs 13 and 110, Famine Report.

14. Paragraph 110, Famine Report. They were successful under heads (a) and (c) where *kacha* wells were dug, but such wells only last three or four years. Where the advances were given for repairing *pukka* wells, they may be taken as being successful under all three heads.

The average depth of water was about 70 feet.

15. *Vide* paragraphs 14 and 15, Famine Report.

16. A standard task of 100 cubic feet to one digger with an adult and a child carrier. No distinction as to sex or previous occupation.

17. No full payment for a full task, minimum wages for a short task.

There was no maximum wage.

No Sunday wage or allowance to dependants.

18. *Vide* section 18, Famine Report.

19. *Vide* section 18 and section 21, Famine Report.

20. Roads under Civil Department.

Tanks under Public Works Department, General Branch.

Canals under Public Works Department, Irrigation Branch.

No special scale of supervising establishment had been prescribed beyond North-West Provinces Famine Code, Appendix D XIV, and the establishment found necessary in the 1896-97 famine, *vide* Major Dunlop-Smith's report, section 63.

There was no delay in opening the works and we never ran short of tools.

No establishment had been nominated beforehand.

21. Yes. Five thousand workers and their dependents.

the maximum was sometimes exceeded, and, where necessary, the pressure was relieved by opening new works and drafting to them, or by drafting to works which had not a full complement of labourers.

22. Yes; *vide* Executive Engineer's report, Appendix G. See also Executive Engineer's reports IV, V, VIII and XIV (4), also my report, section 55, last paragraph, sections 58, 59, 60, 101 and 102.

23. Admission to works was free. No ticket system or distance test, *vide* my report, section 55.

24. It is very difficult to give a definite answer to this question. In the case of Hissár District it varied greatly. People often came from long distances, especially in the case of refugees from Rájputana, and often people from a sense of shame went to work on tanks far away from their homes where they would not be likely to be known.

In the case of a work capable of taking 10,000 workers probably half to two-thirds would be drawn from villages within a radius of fifteen miles, but it depends so much on circumstances.

25. Yes, in all matters not of a strictly professional nature or in connection with the management of the staff.

26. The officer in charge, whoever he was, became a Public Works Department official for the time being, and was the head of his charge. He was either a Naib-Tahsildar, Naib-Tahsildari candidate, approved Girdawar Kanungo or a Duffadar or Jemadar from a Native regiment. He received a minimum salary of Rs. 50, which was afterwards increased on approved service.

The officer in charge had power to check measurements, and was generally responsible that all work connected with the charge was well and promptly done.

27. See Executive Engineer's report III.

28. See Executive Engineer's report II.

29. See my report, sections 15, 19, 23, 26, 74, 75 and 77.

30. Theoretically perhaps a difference should be made between the wages of men and women, but it would be small, and would introduce such complications as would make the system impracticable. The absence of the distinction led to no difficulty, but its presence certainly would have.

31. (a) and (b) See my report, section 15.

We had several different systems. See my report sections 49, 50 and 51.

32. Yes; see my report, section 49. I do not consider that even if started in time a system of payment by results will suffice to prevent the distress becoming so acute as to obviate the expediency of substituting task work. You have to provide for the people who from caste prejudice, pride or shame keep off works until physical deterioration in them or their children sets in.

The full task was exacted from the outset, though usually for two or three days new comers' work was not strictly measured. Tasks were pushed up during the cold weather, but lowered when the hot weather came on. See my report, sections 55 and 57.

34. See my report, sections 75, 76 and 77. I do not think the workers saved much. A large family might have saved two or three rupees by the end of the famine. See my report, section 78.

35. A rest day wage was given from the opening of famine works in the Hissár, Húnsi and Bhewáni Tahsils and in the Fatehabad and Sirsa Tahsils from the 30th December.

Only on works run on the system of piece-work, i.e., the Rangoi Canal, Kurri Tank and Ranghari work on Behal Tank, was the rest day wage added into the ordinary wage, and not paid separately for the rest day. *Vine* Executive Engineer's report (VI) and my report, paragraph 75.

The question of preference for one system or the other to me is the same as piece-work *versus* task work, *vide* my report, section 49.

36. I do not consider the minimum wage too high. I disapprove of a penal wage, and do not consider it necessary ordinarily. See my report, section 54, and Executive Engineer's report VI.

37. The minimum wage was given from the beginning in cases of short work. The penal was not generally used at all, and it never became the wage generally earned, nor did the minimum for that matter.

38. See my report, section 78.

39. See my report, section 78. Bi-weekly payments worked admirably, and I never found that it threw the people seriously into debt with the camp baniá. I should say 95 per cent. of the purchases from the camp baniá by workers were for cash.

40. Payment was made to the individual except in the case of pure piece-work. I prefer payment to the individual: the question is based on much the same grounds as that of piece-work *versus* task work. See anti-question 35.

41.—

TANK.	Date.	Number of workers.	Number of gangs.	Number of gangs getting minimum.	Number of gangs getting penal wage.
Badopal	31st March 1900	4,366	88	6	...
Kurri	5th May 1900	3,423	61	3	...
Chaupalia	31st March 1900	4,194	96	2	...

N. B.—(i) A gang contained approximately 50 workers.

(ii) Badopal was task work with a penal wage.

Chaupalia was task work with only a minimum wage.

Kurri was modified piece-work.

42. See my report, sections 49, 50 and 51.

43. The maximum wage was 20 per cent above the full wage, and in practice it came to an addition of one pice to the full pice wage.

For relief of children, see my report, section 71. *Re* weakly persons capable of doing some work, see my report, section 57. Weakly gangs were given reduced tasks in proportion to their strength. For them there should be no system involving a normal payment below the full, for being weakly they require all the nourishment they can get.

44. No.

45. Muster rolls were always kept up, as they were wanted for statistical purposes.

46. See my report, section 76 and section 35.

47. North-West Provinces Code, Appendix D, XIV, was followed as nearly as might be. See Executive Engineer's report III, IV, V, VII, and my report, sections 54 and 101.

On works on task work system work was measured up daily, on Rangoi Canal bi-weekly.

48. Rates of wages were only altered by the Commissioner subject to the approval of the Local Government. *Re* tasks, see Executive Engineer's report III, and my report, section 55.

49. No.

We had no village works or special relief.

66. See my report, section 71.

67. Cash payments, see my report, sections 79 and 81.

68. See my report, section 79. No tests were imposed—local knowledge was relied on.

69. See my report, sections 92, 122 and 97.

70. Yes. The necessity for sending contumacious persons from works to poor-houses as a punishment never arose.

71. Yes, usually twice a week; at least once a week.

72 to 75. No kitchens were used.

76. See my report, section 95.

77. See my report, section 79.

78. See my report, section 79.

79. To *parda-nashin* women and people of the better class in distress up to such time only as the charitable relief could be organized, when they were transferred to the lists of the latter fund.

80. In poor-houses Hindu cooks were employed, usually Brahmmins. No objection was ever made that I heard of to taking the food.

81. No kitchens.

82. No cheap shops by Government.

83. No.

84. See my report, section 108.

85. See my report, section 108.

86. Before.

Humphreys—2.

87. Usually. In the case of partial suspensions made for the purpose of aiding classes of tenants these were specified in the Collector's order recommending the suspensions.

88. No.

89. Twenty per cent. was the highest percentage touched.

For reasons, see my report, sections 4 and 11.

90 Relief was never excessive, nor was it deficient in point of quantity.

The only thing that could be said was that, in my opinion, the treatment of the people on works as the hot weather came on might have been just a little more sympathetic.

91. This may be gathered to some extent from the caste of the people relieved, for which see my report, section 122.

No information is available as to the percentage of proprietors of land, occupancy tenants and tenants-at-will among those relieved. In June 1900 the percentage of *zanindárs* on works touched 74 on the total number relieved on works. See my report, section 29.

92. Yes. See my report, section 120, first paragraph.

93. See my report, section 113. As a rule no reluctance on the part of the people to exhaust their own resources was observed, except perhaps in the case of *Pachadas*, *vide* my report, section 17. Taken as a whole the tendency was the other way about.

95. See my report, section 55.

96. The village *chaukidár's* register, the births and deaths of their villages, and Municipalities do the same for Municipal towns. General registers are kept up in the police stations, filled in weekly from the *chaukidár's* books, and statements are sent then to the Civil Surgeon.

97. See my report, sections 85, 97, 100, 103 and 104.

98. Impossible to say; see my answers to question 97, *re* general causes. No general attempt was made to disinfect all water supplies in the district, and such would have been impossible. Wells in towns were disinfected, also all wells used in connection with works or poor-houses, and wells and other sources suspected of causing cholera. Wells used in connection with works were disinfected at least once a week.

99. (a) See Executive Engineer's report XIV, and my report, section 55, last paragraph. A *Darogha* supervised the arrangements on each charge, and he was under the orders of the officer in charge.

(b) See my report, sections 93 and 94.

(c) No kitchens.

100. Yes. Inferior or unwholesome grain very rarely found.

101. See my report, section 121. As to effect on the health of eating these things I am hardly in

a position to say, but I think there was certainly some effect. Often these things produced diarrhoea and dysentery, but apart from this, in some cases it is a question if the people might not have fared worse if they abstained from using these wild products

102. See my report, section 122, also 24.

103. See my report, section 100. No figures are available to show the mortality among immigrants.

104. See my report, sections 88 and 91.

105. No.

106. No; see my report, section 34.

106 (a). See my report, sections 33 and 34.

107. No. Enquiries were made from the chief employers of labour and no complaint was elicited.

108. To a certain extent. (a) I do not think so; (b) on the contrary, cotton has been largely supplanting food-crops. See my report, section 115.

109. To a very small extent only. The substitution of cash wages has been practically completed. During the famine wages were phenomenally low, while since the famine they have risen phenomenally and are now perhaps higher than they ever were before, so, on these facts it cannot be said that wages have followed prices.

110. It is not easy to answer this question, as when the famine commenced our Code was manifestly out of date, and as the famine progressed it was gradually amended. A new draft Code has since been drawn up.

As regards the North-West Provinces Code on works we departed largely from Appendix D, XIV.

(1) As regards position of the Officer in charge who was really such and not merely an extra Famine Naib-Tahsildar.

(2) As regards payments which were made by the Cashier and not by the Moharrir, whom we considered could not be trusted, and in other minor respects.

As regards gratuitous village relief the patwari was eliminated as far as possible and payments were made by the Circle Inspector.

No sectional officers were employed. All these deviations I consider were fully justified by experience.

111. Yes. I do not know any other source to which we can look beyond the army and the various departments of civil employ.

112. (1) In distributing gratuitous village relief

(2) In poor-houses as honorary superintendents.

(3) For administering the charitable relief fund.

Re (1), see my report, section 79.

Re (2), see my report, section 94.

I do not think the agency can be extended further than the above.

113. (1) (a) There is nothing to remark.

(b) The task itself never became a cause of any change. Greater strictness in enforcing the task did result in a diminution of people on works occasionally, but as a rule only those people left whose *bonâ fide* was doubtful.

(c) Yes, numbers went down when the wages were reduced in March, but there were other causes see my report, section 26.

(d) No changes were made.

(e) There were none.

(2) (a)

(b)

(c) I do not consider the death-rate was affected by any such causes.

(d)

(e)

114. Disorganisation of family life. No, I do not think so.

Weakening of social restraints. Very slight, certainly less than the pressure of famine in villages where people take to begging.

Relaxation of moral ties. A little perhaps. Unofficial opinion adduces this as an argument against large works, but I am inclined to think that the unofficial opinion exaggerates, and that in reality very little more immorality occurs on a large relief work than in ordinary village life.

The President.—When were you appointed?

A.—I got there on 19th December and remained to October 7th. I had three *taluqas*: Hissar, Hansi and Bhiwani. My duties of inspection only extended over public works. I got all the orders that were passed and went round to see if they were carried out. I was under the direct orders of the Superintending Engineer and reported to him. The report went from him to the Commissioner, and I had to write another to the Executive Engineer.

Q.—Did not that strike you as being waste of energy?

A.—I think it is ridiculous. I should advise that it should be simply sent to the Executive Engineer, and let him write to the Commissioner or Deputy Commissioner. I inspected the works for which the Executive Engineer was responsible, and I think it is sufficient if I report to him.

Q.—What was your opinion as to the scale of wages?

A.—That they were sufficient—18, 13, 10 and 8 is ample in the hot weather. I am in favour of a differentiated scale in the hot weather.

Q.—If the working child was between 10 and 14 would you advise an increase?

A.—I think so.

Q.—In the cold weather should a digger get more than 18 *ehhataks*?

A.—I should put him up to 20, and the carrier up to 15 and dependants to 12.

Q.—Were the tasks allotted suitable?

A.—Yes.

Q.—Was the officer in charge competent to give orders regarding the reduction of tasks when a different sort of soil was come upon?

A.—There was the Sub-Divisional Officer for each *tahsil*.

Q.—He might be 15 miles away?

A.—He could get there the day after.

Q.—And the man on the spot has the power of altering the task?

A.—He ought to be able to do it, pending sanction; the *Naib Tahsildars* might be trusted; I do not think the Secretaries of Municipal Boards are good enough, but the ordinary *Naib Tahsildar* should be. I think the officer in charge should be trusted with the adjustment of tasks and wages, because he does not mix so much with the people as the work agents.

Q.—Was it your duty to inspect the sanitary arrangements?

A.—Yes; they were very good; the water-supply was good.

Q.—Was there cholera?

A.—Very little. It was easily stamped out. It stopped wonderfully soon after the permanganate was put down the wells.

Q.—The number went up very rapidly in January, February and March, and then went down? Why did they go down?

A.—They got funk'd with the cholera, and the same amount of work was expected of them as in the cold weather. The task was reduced afterwards.

Q.—Did you notice any delay in admission to works?

A.—None.

Q.—Did you see any reason why daily payments should not be introduced?

A.—No; I think bi-weekly payments are good.

Q.—We have had evidence that payments at intervals tend to throw the people in the hands of the *bania*?

A.—I only heard of one case of that sort. Indeed, the *banias* said it was not good enough; if they had had debts they would have stayed like anything, but you had to get the *Tahsildar* to get other *banias*.

Q.—Did you take a look at the grain?

A.—Always. I never saw any bad grain. Of course, they knew I was coming. The prices charged were the proper prices, allowing for commission.

Q.—Does your experience suggest to you any improvements on the system of relief administration?

A.—I think that it should be much more narrowed down.

Q.—Would you make the Collector responsible for everything?

A.—Yes.

Q.—And have the Executive Engineer his assistant for engineering duties?

A.—Yes.

Q.—You would have the officer in charge of the works placed at the disposal of the Executive Engineer for employment on that work?

A.—Yes; the Executive Engineer should be like the Assistant Adjutant-General.

Q.—The Executive Engineer would have his Sub-Divisional Officer?

A.—Yes.

Q.—And finally the Executive Engineer would be responsible to the Collector of the district?

A.—Yes.

Q.—All reports would go in the first place to the local man for action?

A.—Yes.

Q.—It will be for the Collector or the Executive Engineer if it is necessary to consult a higher officer?

A.—Yes.

Q.—If you saw evils would you remedy them?

A.—I should say that such and such an order had issued and see that the evil did not occur again.

Q.—If there was anything that was not distinctly covered by the orders, and which you found to be wrong, would you consider yourself right in correcting it?

A.—Yes.

Q.—You mean that you cannot have success in famine relief which entirely depends upon prompt action unless the man on the spot puts it right?

A.—Yes; I had to make a précis of the orders. I had a ream of them.

Q.—This code of the North-Western Provinces was made out by all the officers of the greatest experience who came together and went through every paragraph and laid down what was to be done, and then it was revised by Government—this is the sort of thing you want?

A.—Yes.

Q.—You don't want new orders prepared *ad hoc*?

A.—No.

Mr. Nicholson.—The *Naib Tahsildar* was in supreme command of the bank?

A.—Yes; while there.

Q.—In what relation did he stand to the Overseer?

A.—He was senior to the Overseer and subordinate to the Executive Engineer.

Q.—Then he was the Executive Engineer's assistant, being in charge of the work to give all orders except those in connection with professional details?

A.—The Sub-Divisional Officer came between the Executive Engineer and the *Naib Tahsildar*.

Q.—Were there any actual instances of work being done at night?

A.—Yes; I have been on a tank at 6 o'clock in the morning and found the task finished.

Q.—That is in consonance with the agricultural habits of the country?

A.—Yes.

Q.—It was under the task work system?

A.—Yes; except certain tanks.

Mr. Bourdillon.—Did you find that that throw extra work on the staff?

A.—No.

Q.—Some witnesses have said that in that case it would be necessary to double the staff?

A.—No; it was not necessary.

The President.—You say in your written evidence that the minimum wage, although it was in operation, did not affect the industry of the people; did they do the maximum?

A.—Yes, a number did; it depends upon the encouragement they receive from the officer in charge.

Replies from Captain R. L. Morris, A.-D.-C., late Inspecting Officer, Famine Works, Hissar District, Punjab, to questions drawn up by the Indian Famine Commission 1901.

17. Payment was by results; there was a maximum wage, a minimum wage, a rest-day allowance, and an allowance for dependants.

19. Large public works.

20. The P. W. D. The establishment had been prescribed in advance and was ready. There was no delay in opening the works as tools and plant and establishment were sent out to the tank some days ahead, after it had been decided a fresh tank was necessary.

21. A tank was a charge, and the maximum was about 7,000. This may have been exceeded, and then people were drafted to another tank which had not reached the maximum.

22. Each charge had its own establishment. A Naib Tahsildar (acting) was in charge, and there were work agents, Moharrirs, etc.

Moharrirs were appointed to look after six gangs.

Sirkís and *chittái* mats were sent out beforehand. Yellow flags were fixed and chowkidárs appointed to see that all went to the prescribed place. Wells were guarded and only *charsás* and tins used by regular people who supplied water to all. Baniás were asked to take up shops, and if any difficulty arose the Tahsildar of the tahsil was asked to send other baniás. Hospitals were erected with a separate staff under a Hospital Assistant appointed by the Civil Surgeon, and this man went about the tank and gave medicine, and picked out thin children and others who went daily to the hospital to get food in addition to the dependants' allowance.

23. Free. All could come as long as they did their work. A distance test was tried, but I do not think it worked and was dropped. There were many Mussalmán, Rájputs and others who would not for shame work near their own homes or the houses of their relations and they went far afield. Residence on the works was not compulsory.

24. In the cultivated land about Hási and Hissár and Bhiwáni, villages are closer together than in the *tiba* land about Chowdriwas or Kairu and tanks must be opened with only the idea of how they get filled up with labourers, and how the people can be protected from the effects of famine, and no hard-and-fast rule can be laid down as to area or population. When the first works were opened in the Hissár District people flocked to them from long distances, say fifty

miles, and there were also many from the Native States of Bikaner, Loharu and Patiala.

26. An acting Naib Tahsildar—on the tanks under my supervision he was generally a Girdáwar Kanúngo or Secretary to Municipal Board, or a man who was an *umaidwár* for Naib Tahsildar—two District Superintendents for Settlement. The Girdáwar Kanúngo and Municipal Secretary class are *absolutely useless*. The two District Superintendents of Settlements, both excellent men, and they stayed all the time; also one *umaidwár* for Naib Tahsildar. The others were all weeded out and replaced by Daffadars of Cavalry Regiments who were very good. The pay of these men was Rs50 a month, and after some months certain selected men had their pay increased. The Naib Tahsildar was in supreme command of the tank.

The Civil Officer had full authority to see all orders carried out and was supposed to do so, but, I am afraid, that like all natives of the class of Girdáwar Kanúngo who only “pass on” orders they did not go very carefully into detail and were generally content with saying when taxed by me “*Ham ne hukm dechucka*.” They were good at giving orders, and having spoken did not care whether they were obeyed.

27. The Civil Officer in charge had to write for the sanction of the Sub-Divisional Officer if the task was to be altered in any way.

28. Gangs were made up of families and then people of the same village, who appointed their own mates and people of the same caste. It was easily managed and proved a success.

29. The labourers were divided into—mate; men diggers; men carriers; women carriers; children carriers; dependents, old and infirm; dependents, children.

The wage scale was fixed by so many *chittáks* of the cheapest grain.

N.B.—I have not seen and have no copy of the report of the Famine Commission of 1898.

32. I cannot agree with the Famine Commission of 1898. If the people know that they will get a maximum wage for a certain amount of work and a minimum wage if the whole task is not completed, and if there is strict supervision on the part of the British Officers to see that work is regulated, the people soon settle down and do it, especially if they may by night in the hot weather.

33. The task was set out for the whole gang and the whole gang did it or were fined—100 cubic feet per digger in ordinary soil. No allowance was made for the distance people came. They either lived in villages a few miles off, say three, or on the works. When ground became hard the task was reduced and increased when sand was found. During the very hot months work was reduced all round. No especial class of persons were thought of in introducing any changes.

34. The scale of wages was adequate. No doubt large families might have saved something and also men who could bring their wives to become carriers, but men whose women folk were *parda-nashins* could not have saved anything. Copper coin did not return very freely to the business on the works. The reason being that people generally had their own villages near at hand and would bring a week's supply on the Sunday holiday. The wage was calculated on the selling price of the cheapest grain at the tank and in this was included the bania's profit over the tahsil rate, and so people went and bought from their own banias, where they either had bills running, or could get an inferior article, and more of it, and so save some pice.

25. A rest-day wage is given and is preferable: as when the hot winds blow and the sandstorms come the people want a little rest, supposing as I do, that it is not only the object of Government to keep these people alive, but also fit for immediate work in their own fields or in those of zamindárs when the rains begin and they can then till their own lands, instead of being an incumbrance to all during the rains.

36. The minimum wage is not too high, especially as there is always the penal wage to fall back upon if the people are really shirking their work.

37. There was a minimum wage from the outset.

38. Payments were made tri-weekly; it worked very well and assured the attendance of the officer in charge at payments as only a certain number of gangs were paid daily. The people got to know what was the *dastúr* and settled down to it and it worked admirably.

39. Tri-weekly. No. Some of the staff contracted bills with the banias on the works, but I never heard of any of the workers being in debt.

40. To each individual of the gang who came up in order and gave his or her name and the name of the father. Each individual should be paid; they do the work and the mate only looks on and they should get the result of their labours.

43. According to the season of the year, cold or hot. A certain number of *chittáks* of the cheapest grain and then people could buy what they liked. This number of *chittáks* took into calculation necessities like salt, etc.

44. Contractors were employed for, the supply of all materials, etc., after some months and after it was seen that Sub-Divisional Officers were at variance as to prices.

45. Some Muhammadan Rájputés were paid by result as their women were in *pardah* and a muster-roll was regularly kept up.

46. As far as I remember the Commissioner of the District and the Superintending Engineer, Special Famine Circle. The grain was a mixture of gram and barley. Small variations were neglected,

47. The Deputy Commissioner and the Executive Engineer decided what tank was necessary, sites having been already approved. The Sub-Divisional Officer then made all arrangements about marking out and putting in enough "plant." On a given day the tank was opened and people allowed, as far as possible, to make up their own gangs. Work agents gave out work in the morning and measured up when finished. Cashiers, or well known zamíndárs, paid the wages. Work agents put down in the muster-roll when short work was done and Moharrirs put down minimum wage. Special men were put on water, and retired sepoys, etc., utilised. Civil Surgeon sent a Hospital Assistant who looked after the general health of the camp.

60.)
61. } Nil.
62. }

63. Not to my knowledge.

64. No.

68. Dependents were given money calculated on the purchasing power of so many *chittáks* of the cheapest grain.

73. People after they had gained strength were sent on to the works from the poor-houses and generally left after a few days.

89. All classes from zamíndárs (proprietors) to kamíus.

91. People came to relief works in some cases with cattle either in their own houses or in their possession, but sent away to grazing grounds in the Khádir. They appeared to me to have come to an end of their resources with the village bania, and consequently they wished to work and live, and, if possible, keep their cattle for ploughing when the rains should come. This naturally refers to zamíndárs. There being no work kamíns were not given anything by the zamíndárs and they were turned on to the works. Many zamíndárs would not go on works and they sold all their cattle, etc., and lived on the proceeds.

93. Yes.

96. Cholera was traced at one tank to people drinking from a *gor*, but this was quickly stopped and wells were taken up and none allowed to use them except the staff appointed, and the villagers had to use other wells. Permanganate of potash was put in all wells every week.

97. The sanitary arrangements were good. Small trenches were dug and all filth buried and yellow flags were put up and people went to where the flags were and then sweepers buried all the filth.

100. There were a good many people from the neighbouring Native States and they were happy and contented whilst on the works, so much so that when officials came to take back the inhabitants to their various States, they would give fictitious names of places where they lived.

105. At the very end when the rains were good, I got complaints from neighbouring zamíndárs at each tank (and these I forwarded to the Superintending Engineer for the information of the commissioner) saying their kamíns would not leave the works. On enquiry I found that there was a rumour that Government intended to give them a certain amount to tide them over for a fortnight and when they found the rumour was not true they left the works in considerable numbers.

106 (b).—The canal which runs through a portion of the Hissár District has been the means of fertilising many tracts, and the zamíndár has seen that cotton is a very paying crop, it must have water while it is young, and it must have *rain-water* for the pods to mature and not to allow the plant to go to wood. The nearest land to the canal is now in cotton and in a district like the Hissár District, where the rainfall is scanty and never certain, Government should compel zamíndárs to sow largely crops which produce food and fodder. In my report to the Punjab Government I remarked on this, and I have reason to believe that the Hon'ble Mr. H. C. Fanshawe, C.S.I., is taking the matter up. I was given to understand on very good authority that the Agent of Ralli Brothers hoped to get 80,000 maunds of cotton from the district round Hási, where there is most cultivation. Cotton with only canal water is no use and withers or goes to wood, and it seems to me that in such a district strict orders are necessary for food crops to have the prior claim for water from the canal.

109. Staff Corps Officers were drawn on for the posts of inspecting officers. Officers of the Native Army and Non-Commissioned Officers of the Native Army were used as officers in charge of works, and in my district they did excellent work. No men of the British Army were employed.

Staff Corps Officers and the Executive Engineer of the District should be sufficient, but I would suggest that the whole working of the famine (when once started) should be left in their hands. The Executive Engineer to do *all* the office work, money, bills, etc.

109. Staff Corps Officers to have all charge on the works, issue orders and see that everything is going on well. At present there are the Commissioner, Superintending Engineer, Deputy Commissioner, Sanitary Commissioner, Civil Surgeon, all rushing about, all issuing orders from their different stand-points and correspondence is increased. As *inspecting officer my remarks went to the Superintending Engineer and then to the Commissioner, then Deputy Commissioner and then Executive Engineer, and it took time. When I sent a duplicate to the Executive Engineer he got it quicker, but he at times did not agree with me and waited for the remarks of the Superintending Engineer and the Commissioner, and it all took time. In my opinion when it is that, with any luck, famine will only last some nine months, time is everything and the various orders, etc, and objections from*

the Accountant-General should be curtailed and those who are actually on the spot be given a free hand.

I would recommend the Deputy Commissioner to be the head of the district with two lieutenants, each with separate powers, the Executive Engineer for detail accounts, and anyone else, a Staff Corps Officer for choice, he knows the language and is imbued with discipline, to "run the show" on the spot.

112. I cannot see how the massing of people "tends to disorganise family life or weaken social restraints, or to relax moral ties." The people live in camps, relations near each other and in huts, and are as comfortable as in their mud huts. Parents look after their children, and should they be otherwise than moral they would have many more opportunities to sell their children in their villages and especially with the many houses that are left vacant when a famine is on the land.

The President.—You have heard Captain Morris say that in his opinion it is desirable that authority and initiative should be localized in the Collector of the district in all matters relating to famine relief. Do you agree?

A.—Yes, there might be difficulties in some cases.

Q.—Don't you think, to provide for the possibility of friction, there should be one officer whose orders should be taken as authoritative and that that officer should be the Collector?

A.—As regards the commencing of works, yes; but as to carrying them out the Executive Engineer should be supreme.

Q.—The task is fixed with regard to the condition of the people according to what they can do, and according to many other administrative considerations. Who is the proper person to decide these things?

A.—The Executive Engineer, I think, can decide what the people can do. We have had experiments made to get at what they can do.

Q.—If the Executive Engineer differed from the Collector of the district, if, for instance, the Executive Engineer fixed the task at 90 cubic feet, and the Collector said it should be 80, whose word is to prevail?

A.—I had no cases of that sort.

Q.—Probably where you have English gentlemen working together cases of that sort would not occur; but if you had a case of that sort, don't you think the word of the Collector should prevail?

A.—I have had no experience.

Q.—If there is heavy mortality amongst the workers, it is not from the Executive Engineer that the Government wants a report?

A.—Quite so.

Q.—In regard to the formation of your gangs, did you make use of Mr. Higham's table?

A.—Yes, in the lead, but we altered the constants in some cases. We ran up to 14,000 and as low as 8,000 instead of a fixed constant, otherwise we found we could not alter the task at all.

Q.—We have been told that in the first stage you had a system by which the task was marked out and certain wages were given which were approximate to the Code wage; that afterwards you introduced the Code task system with the minimum wage; and that the workers earned no more than the minimum wage, is that so?

A.—Not quite; many gangs refused to earn any more than the minimum wage, they were contented with that, and I put them on the penal wage.

Q.—Was that the case generally?

A.—Later on even the minimum wage was done away with, the Commissioner said he would not have the people doing the minimum wage, the people were warned that if they didn't do the full task they would be turned off the works entirely: that was never done; a few mates only were turned off.

Q.—You must have been quite sure that the task was according to their capacity?

A.—We had studied that.

Q.—What was the establishment for a charge?

A.—The *Naib Tahsildar*, an Overseer, two Work Agents, one gang *moharrir* for about six gangs of 300 people.

Q.—The gang *moharrirs* went about among the gangs stimulating them?

A.—Yes.

Q.—What class of people were they?

A.—They were picked up in the district.

Q.—Were they literate?

A.—Yes, they kept the musters, they were of the *Babu* class.

Q.—Fairly efficient?

A.—Yes, boys fresh from school did better than anybody else.

Q.—Did you train them on the works?

A.—We kept a few spare men, they were learning their work and were afterwards distributed.

Q.—We were told that you had no system of village works?

A.—No, they were entirely under the Civil authorities; we didn't take them over at all.

Q.—How often did you make payments?

A.—Bi-weekly.

Q.—Are you in favour of more frequent payment?

A.—I think this is quite enough, it saves two hours a week.

Q.—The only objection to that is their getting into debt to the *ban'a*, through eating in one day what they should keep over for another?

A.—That didn't happen. They seemed to have had their food regularly.

Q.—You had no system of compulsory residence?

A.—No, we encouraged them to keep away in their villages.

Replies to questions drawn up by the Famine Commission by Mr. A. E. Orr, Executive Engineer, late Hissár Provincial Division.

19. Large public works originally opened as test works and converted into relief works.

20. The works quoted in previous answer were under the Civil Department. Others subsequently opened were under Public Works Department. The North-Western Provinces Famine Code was taken as a guide for the supervising establishment, and the establishment was not ready, but was got together quickly and there was no delay in opening the works. Tools were also obtained in good time.

21. The Public Works Department relief works were divided into charges, each capable of providing for 5,000 workers. This limit was in many cases exceeded, and the pressure was relieved by drafting to some adjacent work. It may be noted that this limit was fixed for purposes of supervision only, and not on account of the work available, of which there was ample.

22. Each charge had its own establishment approximately as follows:—

One Famine Naib-Tahsildar.

One Sub-Overseer.

Two Work Agents.

One Head Cashier.

One Assistant Cashier.

One English Clerk.

One Establishment Moharrir.

One Head Moharrir.

Two Checking Moharrirs.

16 to 18 Gang Moharrirs (one for every six gangs and two or three spare for emergencies).

One Special Gang Moharrir.

One Conservancy Jamadár.

One Water Jamadár.

One Treasury Guard Daffadár.

Four Treasury Guard Barkandâzes.

One Store-keeper.

Two Store Chaukidárs.

Eight Peons.

One Hospital Assistant or Compounder.

A standard plan for hutting was prepared by the Executive Engineer and issued to camps.

Conservancy was arranged for by construction of latrines, and by marking out spaces for the purpose of latrines.

Water supply was arranged for at the nearest wells by constructing masonry cisterns into which

need for a distinction as the men classed as carriers with the women are not capable of doing more work than the women do.

31. The code task system was introduced at the outset of the Public Works Department works. Two other systems of payments by results were afterwards adopted on some of the works. The two systems were carried on in the same sub-division of the district and in some cases on one work.

32. My experience leads me to prefer the task-work system to that of payment by results.

33. The task varied according to the nature of the soil. The full task was demanded from all except a few of the workers who on account of physical weakness were put into "light labour" gangs. No allowance was made for the distance the workers had to come. Subsequent changes of task depended on the soil, but towards the hot months all tasks were to some extent lightened for all classes of workers on account of the great heat.

34. I consider the scale of wages adopted to be adequate. The condition of the workers remained distinctly good, though they became somewhat fine drawn as must be the case with people working steadily at such work. I heard that a few of the people saved a little of their wages, but the amount in all cases was very small. In most cases the people purchased stores in their own villages, and the banias brought copper coins in considerable quantity to the works.

35. On the works where task work was in force a Sunday wage was given. On others an allowance was made in the rate for the Sunday wage. I prefer the task-work method with the Sunday wage.

36. As a general rule I do not consider the minimum wage too high. To receive the minimum wage is, I think, quite a sufficient punishment to gangs who once in the way do short work. I had many cases, however, of gangs who were content to do short work and to receive the minimum wage. The only way to treat these was to impose a severe penal wage, and I consider that it is absolutely necessary to have a penal wage based on the amount of work done.

37. At the outset minimum wage only was allowed, but it was found necessary to impose a penal wage, as many of the gangs were doing very short work. A few days of the penal wage was all that was necessary to make the people work properly. The penal wage was never the wage generally earned.

38. Payment was made bi-weekly. I do not consider more frequent payment necessary. The people were perfectly content with the arrangement, and made no complaints. It certainly saved them much time and trouble as they had to come up for payment two days a week only instead of six.

39. In the case of new comers daily payments were made when necessary. I came across no cases of people in debt to the bania. The

transactions were to the best of my knowledge always in cash.

40. Payment was always made to the individual except in the cases of one work where piece-work was in force and of some special piece-work for Ranghars, in which cases the value of the work done was paid to the head of the gang. I prefer the payment to the individual, but this is of course difficult or impossible when piece-work is in force.

41. At the time of greatest pressure there were practically no relief workers earning the penal wage, and only an inappreciable minority getting the minimum wage.

42. A system similar to the unlimited piece-work described in paragraph 21 was tried on some of the works, but was limited to Ranghars, whose women, being *purdah-nashin*, could not come on the works. Limited piece-work was also in force at one work, on which muster rolls were kept, but payments were made according to the work done. An allowance of 20 per cent. was made in the rate for dependents, and one-eighth was added also in the rate for Sunday wage for those who resided in camp. The payment was made in a lump sum to the mate of the gang. A third system in which the work was limited, and payments were made according to the work done, but to individuals and not to the mate, was also tried on one work; all these worked successfully.

43. The maximum wage was the value of 18, 13 and 8 chattáks of *bejhar* which was selected as the staple food. Non-working children received their dependents' wage, and in the case of especial weakness or emaciation received in addition a cooked ration from the hospital. Weakly persons who could work were put among the workers, and others unfit for work were entered as dependent. In some cases where there were sufficiently weakly people they were formed into "light labour" gangs, with full pay and a light task which was gradually increased as they recovered their strength, but as a rule the weak people objected to leave the gang in which they had relatives, and the relatives were quite ready to do a little extra work to make up for the deficiency of the weak members. Piece-work was not tried for these people, and is not, I consider, suitable.

44. Contractors were not employed in Hissár except for supply of materials, masonry works, etc., which could not be done by famine labour.

45. Muster rolls were kept up in the payment by result systems adopted.

46. The grain wage was fixed by the Commissioner and Superintendent, Delhi Division. *Bejhar* was selected as the staple food by the Deputy Commissioner, Hissár. Small variations in price were neglected.

47. The first step in opening a relief work was to enlist the people. They formed their own gangs with their own selected mate, and were duly entered in the enlistment register. The strong men were entered as "diggers," weak men and women as

"carriers," and children over 8 were entered as "working childrens. Relatives of these workers who for reasons of age or weakness were unable to work were entered as dependents, the two classes being "adults" and "non-working children." They were then supplied with tools, and given a strip of ground marked out by *dagbels* to dig, the length being marked out on the ground and the depth being specified to them. Their work was measured daily, and they were paid bi-weekly as stated in 38. Fines were imposed by the Famine Naib-Tahsildar, and were duly entered in the short works register.

The conservancy of the water-supply was arranged for by covering the wells and by a special guard at each well. A hospital was established at every work, and the Civil Surgeon provided a Hospital Assistant to take charge, and also arranged for medicines, etc.

48. The wages were fixed, as above stated, by the Commissioner. The tasks were regulated by the Public Works officials so as to give the people eight hours' work per day.

51. No drafting from large public to small village works took place.

Gratuitous Relief.

68. Dependents were relieved on large public works by receiving a grain wage of 10 and 6 chattáks for "adults" and "non-working children" respectively; this was increased to 12 and 8 chattáks in the cold months. On piece-work an allowance for dependents was added to the rate. This was taken at 20 per cent.

97. On works, certain portions of ground were marked off as latrines and were in some cases enclosed. These were cleaned by sweepers, and the excreta was buried. Special conservancy guards were kept up to enforce the use of these special latrines. The arrangements were quite sufficient. There was in most cases a Conservancy Jamadár in charge, generally a military pensioner, and the Naib-Tahsildar was also responsible for the correct carrying out of conservancy arrangements.

98. The grain shops on the works were regularly examined by the Famine Naib-Tahsildar and the Hospital Assistant, as well as by inspecting officers. The grain was on the whole of good quality.

99. The people supplemented their food considerably with the *bher* while it was in season. Many cases of illness were put down to this.

109. Staff Corps Officers were employed as inspecting officers. Non-commissioned officers of the Native Army were employed as Famine Naib-Tahsildars, and Sub-Overseers, and sepoy and sowars were also employed as work agents, Mistries and Jamadárs.

MR. S. W. HERDON, DISTRICT ENGINEER, HISSAR.

The President.—Is there any point you would like to add to what Mr. Orr has said?

A.—No.

Q.—Do you agree with what has been said by Mr. Orr?

A.—Yes, I do.

Q.—Did you find that the people were easily stimulated to do such work as would entitle them to earn more than the minimum wage?

A.—The wage they got was enough to enable them to do their task.

Mr. Nicholson.—Did they do enough for the minimum wage and nothing more?

A.—No, they tried to do more, numbers of my people did 25 per cent. over the full task and got the extra wage for it.

Mr. Bourdillon.—What class of people were they, were there any professional workers?

A.—No, the ordinary cultivators.

The President.—When they were earning 25 per cent. extra, were their dependants also on works?

A.—Yes.

Q.—And were you paying the dependants also?

A.—Yes.

Q.—Was the 25 per cent. extra paid to stimulate their exertions?

A.—Yes.

Q.—You gave 20 *chhataks*, 25 per cent. extra, the rest-day wage, and food for dependants?

A.—I took charge on the 21st of January and then the rates were 18, 13, 10, and 8 *chhataks* and the 25 per cent. extra was only allowed after they had been working for six months.

Mr. Nicholson.—Does night work involve any trouble?

A.—No.

Mr. Bourdillon.—Was the relief to dependants under you or the Civil Officer?

A.—Dependants were paid by us.

Q.—These large numbers of children and dependants were paid on works?

A.—Yes.

Rao Bahádur Syam Sunder Lal.—As regards those people who worked at night, did they also work in the afternoon?

A.—Yes.

Q.—How long did it take to finish a day's work?

A.—Six or seven hours.

Mr. Nicholson.—How were grain prices fixed?

A.—They were fixed by the officials weekly according as grain was selling in the bazar. The *banias* were allowed an anna on the rupee for their trouble.

Mr. S. W. Herdon.

Replies of Mr. S. W. Herdon, late District Engineer, Ussar, to the questions drawn up by the Famine Commission, 1901.

21. In my Sub-Division I had four different tanks or 'charges.' Each charge had sufficient work marked out to employ 5,000 *workers* for six months. This maximum was never exceeded; in fact, with the exception of one charge, it was never reached.

22. Each charge had its own establishment. This comprised—

- 1 Famine Náib Tahsildár in charge.
- 2 Sub-Overseers.
- 1 Work Agent, or more, as necessity arose.
- 2 Cashiers.
- 2 Office Clerks.
- 2 Checking Muharrirs.
- 1 Enlisting Muharrir.
- 1 Hospital Assistant.
- 1 Gang Muharrir for every 300 workers.
- 1 Store-keeper.
- 1 Conservancy Jamadár.
- 1 Camp Jamadár.

About a dozen mates and chaprásís.

The above scale is, as far as I can remember now, correct, but it may have been a little more or less as circumstances altered.

There was always a store godown at each 'charge' fully equipped with all hutting materials, etc.; tatties were made of sirkís and kept in stock. As soon as any new comers came they were given a sufficient number of these tatties to make them comfortable, and their temporary home pointed out to them, with due consideration to caste and residence.

As regards conservancy. There was a boundary fixed 300 yards away from the camp, marked off with yellow flags. People were made to understand that they had to go *beyond* these flags, where a rough screen of sirkís served the purpose of latrines—separate ones for men and women. All night refuse was collected by a special gang of sweepers and buried in trenches at some convenient spot. Besides this a regular patrol of sweepers was kept, whose sole duty was to go about keeping all parts of the charge clean. The Conservancy Jamadár was responsible that this was done.

Wells were sunk with reservoirs attached. There was a special man in charge of each well. *No labourer* was allowed to draw water from the well. Water was drawn by means of bullocks and

the reservoirs filled. Both the wells and reservoirs had a suitable covering over them. The reservoirs had pipes, and from these water was carried by a special staff of kahárs in empty tins to the "piaus" and there stored in barrels or tins. Each "piau" had a raised platform, where the water was kept, was covered in as a preventive against dust, etc. (I mean the "piaus"), and had little tin pipes leading out from it at a convenient height to allow of facility of drinking from the hands. The occupants of these "piaus" were Brahmins,—one or more as circumstances required—and as a labourer came up for water, or to fill his vessel, the Brahmin supplied it by means of the pipes. Each "piau" was distinguishable by a blue flag, and was situated close to where the labourers were working.

Special shops made of kacha bricks with a thatched roof and a platform in front were made for the baniás. Each charge had six baniás. The prices current for the week were calculated and posted up written in different characters, in front of the shops, also made public by beat of drum amongst the workers.

The grain and food stuff was always good. It was closely examined daily by the officer in charge, the Hospital Assistant, also by the Sub-Divisional Officer and other inspecting officers when they came round.

At a certain time when people were off work the gong was struck, which was the signal for everyone to come and do their marketing. Each charge had its own Hospital approved by the Medical authorities, roomy, and with every convenience attached.

23. Admission to the works was free to all comers. A distance test was not insisted on, nor was residence on the works compulsory.

28. Residents of one village and of the same caste made up their own gangs (diggers, carriers, etc., were assorted by the enlisting Muharrir according to their physique). Each gang consisted as far as possible of 50 workers, with one headman as mate. This mate was elected by his own people, and was responsible for the tools and plant supplied to his gang, also for their work, and helped in setting out the task. He was always the most capable amongst the gang, and work was expected of him accordingly. This system worked very satisfactorily.

33. The task was always fixed according to the nature of the soil. It was not graduated to the class of workers, as having gangs composed of members of one family, caste, or village, *chosen by themselves*, the weakly and able-bodied labourers balanced each other as a rule, and *any deficiency in work on the part of the weakly people was made up by the others*. No allowance was made for the distance the workers had to come.

35. The scale of wages was in my opinion adequate; it kept the labourers fit, and, as far as I know, there was no evidence that the workers saved upon their earnings. In some families

with a number of children and dependants they may have been able to indulge in one or two luxuries in the food line, but I do not think they saved.

Copper coin was always returned freely to the baniás.

35. A rest day was given—Sunday—and workers got the minimum wage for no work. This, I think, is a good plan. It gives them a day off to clean up their huts, collect their fuel, etc., for the week, and to give themselves a general cleaning up. The arrangement in my Sub-Division was popular.

36. In my opinion the minimum wage was not too high, nor should fines I consider be continued down to the penal wage. They should be restricted to the minimum wage.

38. Payments were made bi-weekly.

39. Fresh arrivals at a relief work were paid daily for the first few days.

40. Payments were made individually. The gang came up and formed themselves into lines—diggers, carriers, working children, etc., separately, according to their classification—and were made to sit (they got to know this themselves in a very short time) *in the order in which their names came on the muster rolls*. Muster was taken the same way. Each individual then called out his own, with his father's name *himself*, and came up for payment. This was a perfect arrangement, and the best I consider that can ever be adopted.

44. No contractors were employed in my Sub-Division, except, of course, for the supply of tools and plant and hutting materials.

47. The steps adopted in opening a relief work were as follows :—

A suitable site was selected, marked with a flag where the enlisting Muharrir was always present. Newcomers came to this spot and were enrolled. Every evening the different gang Muharrirs sent in slips of paper to the enlisting Muharrir, noting the vacancies in their gang, mentioning caste, etc. The enlisting Muharrir, after consulting these slips, drafted the newcomers to the different gangs, according to their caste, etc. He also gave them at the same time a slip for the Store-keeper (to be countersigned by the Náib Tahsildár), where they got their hutting materials if they lived on the work, and were supplied with tools, etc.

Sufficient work was always marked out for any number of newcomers.

Dependants were all registered and paid along with their respective gangs.

The whole tank where excavation was to be done was divided off into strips of 12 feet. This width along with a $2\frac{1}{2}$ -feet depth was constant. It was known beforehand what task had been fixed per

digger for *that* part of the tank. Then, according to the number of *diggers* in each gang, the task was set, *e.g.*, supposing the task fixed per digger was 100 cubic feet, and in any particular gang there were eight diggers, the whole task for the *day* for the *gang* would then be 100×8 or 800 cubic feet. Divide this by the constant of ($12'$ width $\times 2\frac{1}{2}'$ depth =) 30, and it gave the *length* which completed the third measurement of the trench to be excavated for the day. The breadth was already marked out; the length was then marked and shown the mate by the Sub-Overseer, and each mate had his $2\frac{1}{2}$ feet bamboo rod, so that the gang knew exactly what work they had to do for the day. Each Sub-Overseer went along of a morning after muster was taken, marking out the different *lengths* to be excavated by each gang in this way, and in the evening checked the work, measured the actual length dug, and, to prevent any scamping on the part of the labourers, 12 feet rods were supplied, which were just put down by the Sub-Overseer in one or two places in the trench to prove that the required width had been dug, and of course there was the $2\frac{1}{2}$ feet rod to tell the depth. The workers got accustomed to this system very quickly, and always started their work, *independent* of the Sub-Overseer coming and laying it out first. Of course this was done as their turn came, but the workers always knew *approximately*, according to the number of diggers they had in their gang, what length of work would be set them.

Other items in this question have been dealt with elsewhere in my replies.

96. Permanganate of Potash, in addition to lime, was thrown into all wells every Saturday night.

CAPTAIN P. S. M. BURLTON, DEPUTY COMMISSIONER, ROHTAK.

The President.—Did your district enter on the last famine with full or with reduced resources?

A.—We had rather a bad time in 1896-97; there was a slight famine last year; we have had no good crop since the *khariif* of 1897.

Q.—Was there a heavy failure of the rains in 1899?

A.—They began well in June, but stopped about the 28th of July, and then we had practically nothing up to the next rains.

Q.—You had a failure of the *khariif* in 1899?

A.—Yes; a four-anna crop.

Q.—Was there any *khariif* in 1900.

A.—Very little.

Q.—Are there many wells in your district?

A.—The southern *tahsils* had a fair amount of wells, but the water was brackish and the crop cannot be sown from a brackish well. Rohtak has no wells.

Q.—When did you notice the imminence of famine?

A.—About August we knew we were in for a famine.

Q.—What were the first appearances, apart from your knowledge of the crop failure? Was there a considerable amount of wandering?

A.—Yes; from Jhind.

Q.—Did you establish poorhouses?

A.—No; not till December 1899.

Q.—When were test works established?

A.—In September 1899. We had ordinary works going in the early winter of 1899, which were carried on till the rains: when the rains stopped we began again and stopped during the rains.

Q.—Were test works conducted by the Public Works Department?

A.—No; by the Civil authorities until the end of November; we then started big public works tanks.

Q.—On what system of payment were the test works managed?

A.—On absolutely Code lines, except that we gave nothing to dependants.

Q.—The Code task system or payment by results?

A.—The Code task system.

Q.—That is to say, there was a task fixed and a minimum wage?

A.—There was no minimum wage.

Q.—If there was a task fixed, say, 100 cubic feet and only 75 was done, what did you pay?

A.—We only paid according to results.

Q.—During the test work stage did you allow workers to earn more than the maximum wage?

A.—No.

Q.—Did you adopt the maximum wage of the Code?

A.—Yes.

Q.—How long did that continue?

A.—Till the 15th of December.

Q.—Then you were satisfied that there was a demand for more work, and introduced public works?

A.—I think the Public Works first started a test work on the 1st of December.

Q.—On the same system as you have mentioned?

A.—Yes.

Q.—Was the system changed later on?

A.—The system adopted all through the famine was payment for the work done, plus an allowance for dependants, and 25 per cent. extra for extra work.

Q.—That is to say, the normal wage was really the wage fixed on test works?

A.—Yes.

Q.—When works were managed by the Public Works Department you adhered to that system of payment by results, with permission to earn 25 per cent. over the normal wage and an allowance to dependants?

A.—Yes; that continued throughout the famine, with the exception that we found it necessary to start petty kitchens for feeding weaklings and non-working children, not all, but those who had not been properly looked after by their parents.

Q.—How did you pay dependants?

A.—In cash always.

Q.—You converted your works in December?

A.—Yes.

Q.—At the same time did you start village gratuitous relief?

A.—I think we started gratuitous relief two or three days before we converted test works into regular relief works. I am not absolutely certain.

107

Q.—Were *parda-nashins* transferred from village relief to the Charitable Relief Fund?

A.—Yes; to some extent: and the respectable poor were transferred.

Q.—And others were kept on Government lists?

A.—Yes.

Q.—What is the soil of your district like?

A.—Light sandy soil.

Q.—Do they use hand ploughs?

A.—Yers.

Q.—We they successful?

A.—Yes.

Q.—Was there much scarcity of fodder?

A.—Yes; there was.

Q.—Died you import fodder?

A.—Yes, from Karnal; fodder was very dear.

Q.—Would it not be best to try and store fodder everywhere?

A.—Then the cattle would have nowhere to graze.

*Answers of Captain P. S. M. Burlton, Deputy
Commissioner, Rohtak, to questions of the In-
dian Famine Commission, 1901.*

1. The summer of 1898 commenced well, and up to the end of July the rains were plentiful and a large area was sown. There was no rain during August and September, and the crops began to wither. There were no winter rains for the rabi of 1899, which was quite a failure.

From October 1898 to June 1899 there was no rain. The monsoon broke about the end of June, and was very good. After the 15th July the rains ceased, there was a prolonged drought, and everything withered up. The heat during July, August and September was exceptionally fierce, and the village tanks instead of being brimful were beginning to exhaust their supply of water. The prospects of the district were as bad as they could be.

There had been a famine, not a severe one, in 1896-97. The kharif of 1897 should have been a bumper crop, but in many villages was spoilt by exceptionally large flights of locusts. The rabi of 1898 was far below the normal. The kharif of 1898 was again a poor one, owing to the rains stopping early in August, so that the district had never really had time to recover from the scarcity of 1896-97, and therefore the distress reached the acute stage earlier than it would otherwise have done.

The settlement area by tahsils was as below :—

Tahsil.	Settlement Area in Bighas.								Percentage of kharif on rabi.
	Kharif.				Rabi.				
	Sown.			Matured.	Sown.			Matured.	
	Irrigated.	Unirri- gated.	Total.		Irrigated.	Unirri- gated.	Total.		
Rohtak	21,933	909,231	931,164	898,992	4,395	639,569	643,964	634,893	43 65
Sámpla	20,510	629,920	650,430	580,380	10,961	471,016	481,977	470,871	42 56
Gohána	93,096	436,950	530,046	496,230	49,689	342,540	392,229	378,120	42 52
Jhajjar	1,406	719,688	721,094	582,867	76,888	322,948	399,786	376,673	35 66
TOTAL	133,945	2,695,769	2,832,734	2,558,469	141,883	1,776,073	1,917,956	1,860,557	...

The normal area I have taken to be as follows, calculated on five years, 1892-93 to 1896-97, inclusive :—

Tahsil.	KHARIF.				RABI.				Percentage of Kharif on Rabi.
	Area sown in Bighas.			Matured.	Area sown in Bighas.			Matured.	
	Irrigated.	Unirrigated.	Total.		Irrigated.	Unirrigated.	Total.		
Rohtak	44,099	981,369	1,025,488	826,593	57,583	403,261	460,849	435,325	31.00
Sāmpla	45,765	709,468	746,233	662,266	50,419	387,808	438,227	417,573	36.99
Gohāna	112,895	407,481	520,376	456,959	119,114	278,173	397,587	331,739	43.31
Jhajjar	2,883	784,604	787,487	638,153	93,485	241,916	335,401	310,707	29.87
TOTAL	205,642	2,873,942	3,079,584	2,533,976	320,906	1,311,158	1,632,064	1,545,844	...

277

TAHSILS.	PERCENTAGE OF KHARIF TO RABI AREA SOWN.		
	1897-98.	1898-99.	1899-1900.
Rohtak	63 24	81 75	94 65
Sámpla	65 34	83 32	90 13
Gohána	66 21	69 33	82 69
Jhajjar	70 53	85 26	85 46

MONTHS.	ACTUAL RAINFALL OF 1899.				AVERAGE RAINFALL OF EACH RAIN-GAUGE STATION.			
	Rohtak.	Sámpla.	Gohána.	Jhajjar.	Rohtak.	Sámpla.	Gohána.	Jhajjar.
June	4 97	5 66	4 46	4 89	2 47	2 03	1 90	2 09
July	2 99	2 85	4 78	2 38	6 10	7 39	7 06	6 40
August	1 63	2 38	0 62	1 19	5 13	5 29	4 29	5 43
September . . . . .	...	...	1 46	1 44	3 50	3 44	3 41	3 07
TOTAL	9 59	10 89	11 32	9 90	17 20	18 15	16 66	16 99

4. The actual kharif harvest of 1899 represented—

Irrigated	57 per cent.	} on the normal cultivated area.
Unirrigated	12 „	

5. Petty cultivators, which I have here taken to include village menials and village artisans, as they are to a very large extent dependent on agriculture, form 78 per cent. of the total population of the district.

True agriculturists 52 per cent. only, *i.e.*, those who do nothing else but agriculture.

6. Principally from crop failures and personal observation, also by starting test works on 11th September 1899, previous to which ordinary works under local bodies were started by me early in 1899, stopped when rains began, and re-started after rains ceased.

7. Reports bi-weekly received from tahsils since 1st May 1899, constant touring on my return from leave in July 1899, consultations of officers and zaildárs, and knowledge of the condition of the people, their necessities, and their clamouring for relief.

8. Work on roads was first started as ordinary works from Local Funds. There were no special tests employed either on these or on test works, beyond the exaction of full tasks, payments strictly by results, no minimum wage, and no allowance for dependents, and grain equivalent was calculated on test works as follows:—

Diggers	18 chhitás.
Carriers	13 „
Working children	7 „

9. Yearly a famine relief programme was submitted to Local Government; I am not going to assert that it was altogether a complete one, but it was sufficient to start upon. Previous to this, as soon as I saw that famine was probable, in communication with Department Public Works, the Superintending Engineer and Executive Engineer came down, and we personally decided on central tanks as the only form of major work practicable, I decided upon the localities, and plans and estimates, etc., were at once put into preparation. These were all ready before the famine was officially declared to exist, excepting two or three, which were alternative tanks, and which were prepared for providing for overflow or rush on works.

(b) No, in both cases, and this was one of the greatest difficulties we had to contend with, working at highest pressure, and on such an important work, *viz.*, saving human life, we were forced to work with such materials as we could find nearest our hands, untrained Moharrirs and Clerks, *uméd-wárs*, etc., and with our test works, almost up to the very end, we had no officials given us to superintend these works and had to carry on with the ordinary tahsil work.

LARGE PUBLIC WORKS.

10. Yes, in order to obviate starting large public works towards the end of the famine, and to get the people back to their homes, before rains break, so as to be ready to cultivate.

11. Organization of private charity in towns and villages was first started by me early in April 1899, and again on my return from leave in August

Test works were started	. On 11th September 1899
Gratuitous relief	. . . On 22nd November „
Poor-houses	. . . On 27th „ „

12. Village inspection began early in October, in accordance with the relief circles, by Circle Inspectors. As each village list was ready, it was checked on the spot by a Tahsildar or his Naib, and again a certain per cent. of all villages were checked by the Sub-Divisional Officer. Every village was checked by a Gazetted Officer, if not before the starting of gratuitous relief, very shortly afterwards. These lists were then sent into the Sadr Office and per cent. on each class drawn upon the population of each relief circle by villages, as a general sort of guide, and when in any village there was a large proportion of any one class, enquiries were again made by the Sub-Divisional Officers. The Circle Inspectors and Inspecting Officers also had to make enquiries *re* absentees, and in the preparation of the lists orders were issued to all officers on the lines of the North-West Provinces Code.

(b) *Nil.*

(c) Every effort was made in this respect by all of us.

(d) All Inspecting Officers on arrival at a village held a muster, and, in accordance with North-

West Provinces Code, divided the inhabitants into classes, and saw that all able-bodied persons in need of relief went on to the relief works, and all unable to work, in need of relief and with no one to support them, were put on the gratuitous relief. Patwáris, lambardárs and tholedárs were the persons always consulted.

Loans were given as follows:—

	Act XII of 1884.			Act XIX of 1888.			Amount suspended from advances under Act XII of 1884 for wells, seed and lao and charas.
	Tahsil Jhajjar.	Tahsil Sámpla.	Tahsil Rohtak.	Tahsil Jhajjar.	Tahsil Sámpla.	Tahsil Rohtak.	
	₹	₹	₹	₹	₹	₹	₹ a. p.
Rabi 1899	6,349	...	...	...	400	...	...
Kharif 1899	20,641	3,524	3,629	...	...	...	19,055 8 0
Rabi 1900	34,679	4,515	1,379	390	450	...	4,997 11 0

for getting ready wells, for buying seed-grain and lao and charas.

Wells are never worked during the kharif in this district, and no one could be got to take *takávi* fort his purpose in the kharif.

14. Irrigation wells are used very largely in Jhajjar Tahsil, and in the Dchri Circle of the Sámpla Tahsil. Many of the wells in Jhajjar Tahsil are brackish, and the water of these is useless without rain. In the large *bárání* tracts of Sámpla, Jhajjar and Rohtak Tahsils each village has generally one or two wells, situated on the tanks, which are used for irrigation purposes in times of deficient rainfall. These wells were largely used in the rabis, of 1898 and 1899, but as the tanks themselves were empty the wells gradually became bitter and the crops sown withered.

The average depth of water below the surface in the autumn of 1899 was in the Dehri Circles of Jhajjar and Sámpla 15 and 30 feet, respectively, in the other assessment circles of Jhajjar from 30 to 50 feet, and in Sámpla from 40 to 80 feet.

Large numbers of *katcha* wells were dug in both tahsils, but in Rohtak Tahsil the spring level is too deep to admit of them.

The difficulty we had to contend with was not want of wells where there was sweet water both in the rabi of 1899 and 1900, but to get the people to put them in order and work them. Nothing short of personal influence succeeded as they were greatly disheartened. Moreover, large numbers of bullocks had been sold off, and there was no fodder to feed the few left, and wherever possible advances were made, not only for *lao* and *charas*, but also for seed grain and fodder for cattle. All our well cultivation was successful in rabi 1900, as they very

sensibly refused to sow on bitter wells. The areas under well cultivation at rabis were —

	Rabi 1895.	Rabi 1896.	Rabi 1897.	Rabi 1898.	Rabi 1899.	Rabi 1900.
Rehtak	1,160	2,289	6,330	1,505	3,327	5,918
Sámpla	2,806	13,155	31,656	16,075	24,838	33,083
Jhajjar	64,576	94,239	14,268	97,806	127,300	108,851

Crops that were sown by aid of wells were successfully harvested, none but irrigated crops were sown, as the rains ceased so early that *bárání* rabi sowings were generally impossible.

Katcha wells last from three to four years only, and *pucca* wells take too long to build, to be of any use, in the time of scarcity, though they would be of great use in future times, and a careful examination is being made by estates to show the capabilities of well irrigation in future famines, and advances will be made as funds permit, as a sort of permanent insurance against famine. But the matter is a difficult one, as the people will do nothing, in times of plenty, and it is too late when the famine is on them.

15. I cannot say that labour was altogether the first criterion of relief, though it was the first practical test employed.

Works (ordinary) were started by me early in 1899 under the District Board Act. First we tried contractors, but that not being a success, we did them *amáni*, under the supervision of the ordinary tahsil staff, the disbursers being zaildars or other rural notables.

These works continued till the rains broke. They were started again on the 15th August and were converted into test works on 11th September 1899.

16. The tasks on test works were set in accordance with the nature of the soil.

On soft sandy soil 200 cubic feet per digger was exacted, on ordinary soil 150 cubic feet, on hard soil 75 to 100 cubic feet, and on *kunkar* 25 to 50 cubic feet.

We had no female diggers, and only the able-bodied strong men were classified as such.

We took no count of previous occupation, as professional diggers as a class do not exist in this district, but every one received for the first week the normal wage, whether he did the task or not, provided the officer in charge was satisfied that the deficiency was due to his not being accustomed to digging, or not understanding what he was required to do, and not to wilful laziness.

17. After the week payment was made on test works strictly in accordance with results. There was no maximum wage, there was no minimum, and there was no allowance for dependents. The above remarks apply to test works only.

27, 1899

18. The conversion of test works into regular relief works took place on 2nd December 1899, *i.e.*, after a period of twelve weeks. It is impossible to state exactly what determined the conversion. Personal observation and knowledge went a long way. The existence of distress, proved by the willingness of the workers to do a very large task at a very small wage, with a continued increase in the numbers, also contributed largely.

19. Large public works as well as small works under the Civil had been started as test works. The latter were gradually absorbed in the former, and were never declared to be regular relief works.

20. Public Works Department were absolutely responsible for their own works. I rather fancy that the scale of supervising establishment had been fixed beforehand, *i.e.*, one extra Naib Tahsildar to every 5,000 to 6,000 relief workers. There was no delay in opening the works, and there was an abundance of tools, etc.

21. No, according to the size of work, and drinking water available; the relief work was fixed to have a maximum number of 6,000. The maximum was constantly exceeded and was arranged for by drafting at first, and second, at a later stage, by the opening of village works.

22. Each charge had its own establishment. Department Public Works can give details.

Hutting had been arranged for beforehand by supply of *sirkis* to each family living on the works. Hutting was never a very great difficulty, as the majority did not live on the works. Conservancy establishment was arranged for by Department Public Works, Civil authorities supplying pensioned soldiers as Jamadars, etc.

The wells were fixed upon beforehand by Civil authorities, disinfected and passed by Civil Surgeon, and then handed over to Department Public Works, who kept a guard night and day. Baniás were provided by Civil authorities, also Hospital Assistants.

23. Admission was free to every one at first; subsequently I obtained permission from Commissioner to start a *parcha* system. Previous to this a distance test was going to be imposed, but was never started. Residence on the works was never compulsory.

24. Less than one-fifth of the people lived on the works, even after a Sunday wage was given to those who did so. Works opened in the vicinity of any large village, by which I mean villages with a population of over 3,000 inhabitants, were invariably swamped by such villages, till we put in force the selection system, without which our numbers would have been over 70,000 relief workers alone. Nine-tenths of relief workers came from villages situated within 8 miles of the work.

25. The Civil authorities gave no orders to Public Works Department, who were independent in all matters as regards organization and control. We limited ourselves to constant inspections of their works sufficiency of wage, suitability and performance of tasks, kitchens, condition of workers and children, convalescent gangs, hutting and water arrangements, but not so as to interfere with the internal economy of the work, and anything requiring setting right was decided in demi-official correspondence with Executive Engineer or Sub-Divisional Officers.

26. The Civil Officer in charge was in all cases a Girdáwar, promoted to Extra Naib Tahsildar, given over to Public Works Department, whose official he became. Nothing else was necessary.

27. There was no Civil Officer in charge. Tasks were varied by Sub-Divisional Officer, or on representations made by officers of Civil Department, which meant Deputy Commissioner or Assistant Commissioner only. Civil Sub-Divisional Officers went on the works, after consulting Executive Engineer, but made no remarks in inspection book, but submitted results of visits unofficially to Deputy Commissioner.

28. Concerns Department Public Works. Constant efforts were made to keep the members of one family together, and village gangs. This was one of the many points to which Civil officers paid special attention.

29. Grain equivalent was first, diggers 18, carriers 13, and working children 7 chittáks, respectively; then raised to 20, 15 and 8 chittáks, respectively, from 2nd December 1899 to early part of March 1900, and again lowered to 18, 13 and 8 chittáks.

The wage calculated on grain equivalent *plus* allowance for dependents was ample, together with the maximum wage that could be earned by the gang if they liked.

As a matter of fact, it was alleged that they could save money on it, so that we were quite justified in the reduction, though the fact of saving a few rupees is not of itself a condemnation of the wage.

30. There never were female diggers, or, if so, very few indeed. The classification therefore resolved itself into—(1) digger, (2) adult carrier (both sexes), (3) working children (both sexes). No difficulty was ever experienced, in fact classification would lead to complication in accounts.

31. When test works were converted into relief works, in consultation with Executive Engineer, we started an intermediate system of picce-work, or, perhaps, more strictly speaking, task work, with payments by results. The system was as follows:—

- (1) The task was fixed for the gang, by multiplying the task by number of diggers.
- (2) To each digger there was a proper proportion of carriers varying with the soil, lift and lead.

(3) To the whole task 25 per cent. was added, which the gang could do as they liked.

(1) The wage was calculated, taking the grain equivalent to equal the task, *plus* 15 per cent. allowance to each for dependents, *plus* 25 per cent. if the maximum was done. Table and ready-reckoners were worked out for varying tasks by Executive Engineer, and supplied to each work, and so the calculations were made very simple.

This was the only system in force in the district.

32. The great drawback to this system has been described by me in details in my famine report. Payments by results must always be the most satisfactory of all, and I do not see why relief should not be adequately afforded even in cases of severe distress, provided (*i*) that the distress is taken in time, and the general physical condition of the people is not bad. Exceptions can always be arranged for by convalescent gangs, which can never be obviated; (*ii*) and that the payments by results do not include the upkeep of non-working children and dependents. That is where our system failed. We allowed an allowance for all dependents, and yet, finding that children (in a few cases even including working children but mostly non-working children) were being neglected, we had to start kitchens, and also allow the allowance. In some, but not the majority of cases, the dependents were too many to be covered by the allowance; but in most of the cases, by personally verifying, I found that the falling-off was due to neglect by parents, though they were earning a sufficient wage. We started cutting the allowance from those who neglected their children, but this led to confusion, or at least Public Works Department said it would, and so we were forced to accept the inevitable, seeing that the famine was coming to an end, and not wishing to change a system which otherwise worked well.

The lower in the social scale, the more the neglect, which was confined mostly to village artisans or menials, Mahommadans of all classes, and agriculturists other than Jats, Hindu Rājputs and Brahmins.

33. Public Works Department.

34. The scale of wages was sufficiently liberal. The condition of workers excepting a few non-working children improved visibly, and it was common talk of the countryside that there were savings made.

35. No Sunday wage was given, except to those who lived on the works.

All workers could earn a 25 per cent. maximum. The maximum wage was, in my opinion, if earned every day, sufficient to cover the expenses of the rest day, but this could not be depended upon, in which case a rest-day wage should, I think, be given to all, independently of whether they live on the work or not.

36. We had no minimum wage, or fines ; we paid strictly by results.

37. On the regular relief works every one for the first two days was allowed the normal wage, irrespective of his outturn, in order to give him time to shake down and get accustomed to the work.

The percentage of gangs earning the maximum varied on different works from 15 to 25 per cent., the normal to something like 60 per cent. to 70 per cent., and below normal to 15 to 20 per cent.

38. Daily payments were in force ; I think daily payments should always be made. It is popular with the people, enables them to make daily payments to the bania, and possibly prevents the people being swindled, as each man can understand what is due to him daily ; but with measurements differing daily, he would not understand bi-weekly payments.

39. Every one was paid daily, on the third day, for what they had done on the first day, and for the first two days normal wage was paid to all new comers.

40. Payments were made as follows :—

The muster rolls having been prepared overnight and checked in the early morning, the mates of each gang were called up, and a bag containing the exact amount due to the gang, with a slip inside it, stating the amount, was given over to each mate.

The Moharrir then went with all his mates to where the gangs were working. No. 1 gang stopped work, and fell in according to the muster roll, and the Moharrir read out what each digger, carrier and working child were entitled to, and payments were made accordingly. Any one marked absent in the muster roll on the day for which payments were made was paid separately on an absentee register by the officer in charge. When No. 1 gang was finished, the Moharrir went on to No. 2, where the mate was ready for him. In this way, though payments were made to the head of the gang, we saw that each individual was also paid.

The presence of certain native gentlemen, zaildars and lambardars, who were required to attend daily on a roster, also contributed largely to the workers getting their proper pay.

41.

	PERCENTAGE OF GANGS' EARNING.	
	A and B	C
Beri Dubaldhan	99 0	1 0
Pir Baha-ud-din	82 7	17 8
Chhuchakwas	93 0	7 0
Bhurawas	89 0	11 0
Baprodah	93 6	6 4

A and B normal and maximum ; C below normal.

2294 283

42. A system of payments by results was in force, and does not altogether tally with either one of the systems described in paragraphs 208, 212, of the Famine Commission Report of 1898.

Nearest to it was the modified intermediate system, in that ours was a development of the code system of task work.

We went in for classification, fixing the task, and setting out the work. Nominal rolls of all workers were kept, but not of dependents. It did not limit the earnings of all workers to a bare subsistence allowance, as the wage included a 15-per cent. allowance for dependents, and the workers were allowed to earn daily a 25-per cent. maximum. The number of carriers to the gang varied with the requirements, and every effort was made by Department Public Works to see that they were not in excess of requirements; whether they were entirely successful, I leave it to their officers to say, as I do not feel competent to express an opinion on this.

The maximum wage was 25 per cent. over the normal given to the gang for doing a 25-per cent. increased task. Non-working children and dependents were provided for in the 15 per cent. allowance. Infirm people were put into convalescent gangs, were given light work, and were paid the normal wage. It is impossible to put such people on piece-work at favourable rates.

As already described, we found it necessary to start kitchens for the non-working children, who appeared to be losing condition, mostly from neglect and partly from the dependent allowance being insufficient for a large number of non-working children in one family where the bread-winners were too few.

44. No contractors were ever employed.

45. Muster rolls were kept up in exactly the same form, and at one stage we did actually revert for a few days on one tank to task work.

46. Civil authorities, Tahsildars of each tahsil, informed officers in charge of tanks every Saturday what the price-current would be for the coming week.

It was based on the cheaper grains, which was generally *béjar* or *jao*, i.e., a mixture of gram and barley, or plain barley.

No account was taken of variations below two pies, as per orders issued on receipt of Commissioner's Circular No. 181, dated 23rd September 1899.

47. In Public Works Department.

48. Wages, i.e., the grain equivalent, were fixed by Commissioner. Neither Collector nor Executive Engineer could alter them without first referring to him. Tasks were first set by Executive Engineer or Sub-Divisional Officers. Collector's representations were always readily accepted by Public Works Department.

49. Arrangements were made with doubtful success to draft some 5,000 or 6,000 to the Delhi-Agra Chord Line. The actual number which went amounted to 2,133, and it was with great difficulty that the people were got to understand what it meant. When this was achieved cholera broke out and all further drafting was at once stopped. Drafting to village works was started on 4th June 1900 in order to relieve the pressure on the Public Works Department tanks. The success was immense: the village tanks were opened in villages where a certain number of the inhabitants of it and the surrounding villages were already working on a Public Works Department tank. No arrangements were necessary; the people were simply warned, and they turned up most willingly, and when the transfer was made in large numbers, their Moharrirs accompanied them.

SMALL VILLAGE WORKS.

50. A very minor part indeed.

51. Only excavation of village tanks.

52 and 53. Entirely under Civil agency by direct management, the Lambardárs, etc., being associated with it to a very large extent. Patwáris did the measuring with the help of mates, Zaildárs and Lambardárs the payments.

54. The code system was adhered to throughout. Wages and payments by results were the same as on Public Works Department tanks, and muster rolls the same also.

Employment was given on the *parcha* system only.

55. The system of selection of applicants was adhered to in village works also; it was most necessary and was entirely successful.

56. Excepting a village tank at Rohtak itself, there were no small works near any big one. Each small work, including the Rohtak one, had certain villages allotted to it, and for these villages admission to other works was closed.

57. This is rather a large question. My opinion was expressed in my Famine Report, and are given now with some diffidence, as my superiors do not agree with them.

I think when it is impossible to have any remunerative relief work in a district, that the benefit to a district of such Department Public Works tanks as were excavated in this famine rather a doubtful one, and certainly not to be compared with the advantages to the inhabitants which would have accrued if a large sum had been expended on village tanks. The village tanks are a great feature in this district, and it is impossible to overestimate the importance of them to the zamindárs.

The advantages in extending them would have been, in addition to the above, a large saving in expenditure on hutting, conservancy establishment and watering arrangements. Then comes the question of supervision and efficiency, and on this I

fancy all Public Works Department Officers would unhesitatingly give their votes for concentration of labour, on the ground that in no other way would supervision be possible. It is therefore with diffidence that I express the view that I do not see why there should not be the same efficiency and supervision over small village works as over large Public Works Department relief works.

There is also the political aspect to be considered. For some time one had to explain to the people why large works were going to be done, as there is a very strong feeling in the district against no village going to work in another village lands, and it was only severe scarcity and the idea which we spread about that it was *Sirkár ki naukri* that they were able to smother their pride and come to work. Even then, though very grateful, they have not altogether understood the principles, and perhaps in some villages (I say perhaps because I do not know of any such cases) we may have failed to get at individual cases of distress accordingly.

58, 59, 60, 61, 62, 63.—Blank.

64. No special measures were taken to prevent mortality of cattle, nor were any measures possible. We gave *takávi* for fodder for such well cattle as were actually working wells, and where owners could not afford to keep them alive.

65. None at all, and indeed such would have been useless, for the people had no money wherewith to buy fodder.

To advance money to keep a pair of bullocks alive through the famine would have cost R240, far more than the animals were worth.

66. Dependents were relieved by the bread-winners whose wage included a 15-per cent. allowance for this purpose.

On the large public works, as already stated, we found the children of the lower castes were being neglected by their parents, and we had to open kitchens in which a ration of cooked food was given daily to all emaciated children.

On small village works the 15 per cent. was found sufficient.

67. Cash doles were given on the grain equivalent of 12 and 7 chittáks to adults and children, respectively, from 22nd November 1899 to 31st March 1900, and from 1st April 1900 to 31st October 1900 of 10 and 7 chittáks respectively.

Cash doles were found by far the most convenient form for distribution, and were most appreciated by the recipients; any other form would be most cumbersome and probably lead to much speculation.

68. No, and I submit a copy of heading of statement which was submitted to Commissioner showing what classes were in receipt of gratuitous relief, and the per cent. they formed of the population of each village.

No tests were applied. We trusted entirely to our system of local inspection.

Persons unable from weakness or illness to earn their living.	Persons of respectable position reduced to starvation.	Women and children in pardah.	Blind persons.	Cripples.	Idiots and lunatics.	Persons detained to look after sick and children.

69. Two only.

Rohtak opened 27th November 1899, closed 1st October 1900. Jhajjar opened 28th November 1899, closed 1st September 1900. Bāgrīs, Bikanerīs and people who had somehow or other escaped being put on the gratuitous list. *Re* latter, enquiry was at once made and suitable orders passed.

The number never exceeded 250 in poor-houses, the maximum being reached with 250 on 19th August 1900.

70. Yes, very much so.

No persons refusing to work were ever sent to poor-houses.

71. Yes.

72. None, excepting on works. Each large work had a kitchen.

73, 74, 75. Blank.

76. Poor-house ration was—

Adults.—Twelve chhitáks from 27th November 1899 to 31st March 1900, 10 chhitáks from 1st April to 6th October 1900.

Children.—Five and 7 chhitáks.

Rations were varied, and in case of sickness or weakness, special diets were ordered by Medical Officer in charge.

77. The village lists were first drawn up by the Circle Inspectors, who in every case were zaildárs and lambardárs. They were then checked by Girdawars, Naib Tahsildars and Tahsildars. Before starting the distribution, each Gazetted Officer was given a certain number of circles, and he at once, in accordance with orders issued on North-West Provinces Code, commenced his inspection also. He had to visit more than half the villages in his *illaga* once a week, and all the recipients, together with candidates for admission, were inspected by some officer or other two or three times in the month, in addition to the Circle Inspector's visits when he gave the dole.

78. By Circle Inspectors—(a) in cash, (b) every 14 days, (c) at the villages of recipients.

79, 80, 81. Nil.

82. Cheap grain shops were opened from Indian Charitable Relief Fund at Rohtak, Kalanaur, Mehra, Jhajjar and Bahadurgarh.

Admission was regulated by tickets supplied by relief officers on recommendation of zaildars and lambardars and other rural notables in each village. This form of relief was not a success, grain was never very dear, and the people abused this form of relief, in that it became a fictitious transaction with the bania, who shared the profit with the recipient.

83. These shops had no effect whatsoever on the grain trade.

The transactions were too insignificant.

84.

		1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
		Rs.	Rs.	Rs.	Rs.	Rs.
Kharif	Rohtak . . . . .	...	30,475	...	19,518	1,26,479
	Sámpla . . . . .	...	44,248	1,263	46,881	80,775
	Jhajjar . . . . .	...	57,967	6,447	30,131	1,03,297
	Gohána . . . . .	...	9,242	490	5,489	20,204
Rabi	Rohtak	1,350	76,004	5,849	64,304	82,724
	Sámpla	6,235	50,943	2,425	58,310	62,172
	Jhajjar	2,982	60,339	2,882	54,597	74,421
	Gohána . . . . .	...	12,415	590	4,979	10,425

None was remitted. The whole revenue of the district by tahsils is—

	Rohtak.	Jhajjar.	Gohána.	Sámpla.
	Rs.	Rs.	Rs.	Rs.
Kharif	1,42,311	1,15,801	1,17,415	1,52,688
Rabi	92,507	1,06,155	94,175	1,05,858

85. To begin with absolutely on crop failure, but by differentiating between rich and poor revenue-payers. Latterly when the crop failures became universal, differentiation became an impossible task, and suspensions were given to whole estates.

In the former case, the differentiation was made (a) by patwari and kanungo, whose work was checked by Tahsildars and the Revenue Assistant to some extent, but this is the great objection to differentiate the power it gives to subordinates, and in cases of wholesale suspensions it is impossible to check each case, and there are therefore unlimited possibilities for exaction.

86. Always before collections began. In no village, during the time I have held charge, have collections been taken and then suspended.

87. Under the Tenancy Act a landlord cannot reeover his rent when the revenues have been suspended.

88. No, I cannot say I did.

89. The number of persons in receipt of relief at any time never exceeded 12 per cent. on population of distressed area, which was touched on week ending 14th July 1900 only, and then it receded.

90. Relief was excessive in that before we put the *parcha* system into force, there must have been many people on relief works who could have existed without it, afterwards I do not think such could be said.

91. The classes in receipt of relief were :—

RELIEF WORKS.		Classes.	GRATUITOUS RELIEF.	POOR-HOUSE.
Classes.	Per-centage.		Per-centage.	Per-centage.
Jats	46	Jats	6.98	23.54
Muhammadans	8	Hindu Rajpúts	3.83	1.36
Menials	46	Muhammadan Rajpúts	14.09	4.24
		Ahirs	2.20	3.44
		Mális	0.79	1.12
		Patháns	3.23	1.60
		Shoikhs	6.07	3.92
		Sayads	0.23	0.08
		Gujars	0.62	1.52
		Brahmans	5.53	4.03
		Biloches	0.69	1.43
		Agris . . . . .	...	...
		Menials	55.56	53.87
		Mugals	0.18	...

92. I have had no experience of previous famine. It must be taken into account that this was the severest famine in this district within the memory of any living man, that there was only an interval of five harvests between this and the famine of 1896-97, of which only one could be called a good harvest. Nevertheless, I think it must be admitted that the people more readily sought relief in various ways.

For the Hindu agriculturists, of whom Jats form a very large proportion, this can be attributed to two things—(a) their being in greater distress and, therefore, actuated by necessity, (b) by their thriftiness, and being actuated by a strong desire not to have to eneroach on their savings which they would want for sowings as soon as the rains broke, and their not having anything to do but sit idle in their homes they thought they might as well earn something. The lower classes were driven by sheer necessity, and the Muhammadans would not work at all, but were quite shameless in the desire to get gratuitous relief.

93. I have partly answered this in my answer to Question 92. It is impossible to quote bad facts, but I am certain from what I myself heard and what my officers told me that amongst some of the Jats there was this reluctance.

94. Not as regards applicants for admission to relief works. A method of selection is quite practicable in all cases when the distress has been met in time, with the common-sense proviso, that every one whose physical condition is a proof that relief is necessary, must be at once admitted on to the work.

95. The system is easier worked before a relief work is open, and is attended with some difficulties when weeding out has to be done afterwards. It must be done only by experienced officers, and before the whole village, and need only be applied to villages within a certain radius of the work. If people will walk five or six miles to and fro, morning and evening, or put up with the many discomforts of a residence in camp, I consider no other test necessary, but it is the swamping of relief works by near villages which should be guarded against. There should also be the safeguard when an applicant is refused admission to a work, in the vicinity of his village, of giving him an order to be at once admitted on some more distant work. This was always done, but very rarely used.

96. The system of registration of births and deaths followed in this district is as below :—

For Municipal Towns.—The head of the family in which a birth or death takes place reports the fact to the Octroi Moharrir who keeps up the birth and death registers. He records it in the registers and sends a weekly abstract to the Civil Surgeon.

For Rural Areas.—The village watchman keeps two books, one for births and the other for deaths, in which he gets the entry made by patwári of the village. The lambardárs of each village are held responsible that all entries are made in these books. The village watchman brings these books to the Police Station at his weekly visits and the Police Moharrir compiles his registers from these and signs the choukidár's books. The Police Moharrir prepares an abstract from these every week and sends it to the Civil Surgeon through the District Superintendent of Police.

The Tahsildar, Naib-Tahsildar and Kánúngo examine these registers when on tour, and submit a monthly statement of the results of their inspections.

97. It is impossible to say, but certainly to a large extent. Lengthy enquiries were made on this point, and a detailed report submitted. The result of the enquiry showed that whilst there were no deaths due to starvation, many of the deaths in certain villages were of people in by no means straightened circumstances, and some of course must have been due to diseases brought on by unwholesome or insufficient food.

98. I do not think it can be said that an impure water-supply had anything to do with the increased mortality. All wells were carefully inspected, disinfected and passed by the Civil Surgeon, before a site for a relief work was finally determined upon. It was then handed to the Department Public Works, who built a reservoir with pipes leading out for distribution. A guard was on the well day and night, and it was disinfected with permanganate of potash every week by the Hospital Assistant in charge of hospital on the work.

99. Poor-houses. Our numbers were never so great as to make this a matter of any difficulty.

100. Yes, it was daily inspected by Hospital Assistant and Officer in charge, and whenever any Inspecting Officer, either Department Public Works or Civil, visited the work.

A few cases of selling inferior grain were brought to light and the bania either fined or prosecuted.

101. In this district, on all occasions even the zamindars supplement their food with the following :

Mixing up with inferior grain the bark of such trees as *kikar* and *jand*, *pilu* (berry of the *jal*), *kair* bush (wild caper), blossoms and berry are used, *sag*, such as *skandura* and *sarwak* and I do not think with any bad effects.

102. Large numbers of Bikaneris came into the district. They would never work if they could get anything by begging, and were a regular nuisance in any of the towns where there was indiscriminate charity. I had to put a stop to this, giving them the choice of moving on, or going into poor-houses, or on the works. Most of them passed on to Delhi.

103. The number of deaths reported as *lawaras* during the famine amounted to 197. They were probably more than that, but our system of reporting is by no means a perfect one. The number of such deaths would not have any appreciable effect on the district death-rate.

104. All the orphans at the end of the famine were handed over to the Bhiwani orphanage. They only numbered 11.

105. I think (c) of Object I unnecessary. Once satisfied as to the necessary qualifications of such a class and their willingness to accept State relief, it would be invidious to make any additions from the Charitable Funds.

The expenditure under Object II in this district was very small, and I have not sufficient experience to express an opinion.

106. The railways brought into this district enormous quantities of grain, without which we should have been in a very bad way indeed. These imports kept down prices largely.

106 (a). Weekly cards were despatched by Station Masters of all Railway Stations in the district showing imports and exports.

The assumed consumption of the inhabitants would amount to in one year 3,750,000 maunds, of which 1,333,150 maunds were imported.

107. None.

108. In the canal-irrigated crops, sugarcane indigo, and cotton are largely sown, but I do not think there has been any large increase of late years.

The question of prohibiting these and only allowing cereals is at present under consideration. The zamindar will always sow cotton on *bārāni* tracts to a large extent, as it pays him so well, but there is no contraction of cereals on *bārnaī* lands.

109. Wages are generally paid in cash, and the labourers generally insist on this, showing daily a greater reluctance to accept payments in kind. Wages are more now than they were in the famine, but have not otherwise shown any tendency to increase.

110. Only in the selection of applicants from relief works, and in the reduction of wages which, in my opinion, was quite justified.

111. Under Department Public Works only who can but answer the question.

112. Non-official agency was used by me when test works were started in supervising and distributing pay of the workers.

After relief works were started, by visiting all relief works in the vicinity of their villages, and seeing that the people were being fairly treated and properly paid. In bringing applicants for gratuitous relief to notice and distributing such. In serving on the various committees of the charitable relief funds and in distributing secret relief. In visiting poor-house, and cheap grain shops.

113. (a) (1) and (2). This change was not made.

(b) (1).—No attempt was ever made by raising the tasks to keep people off the works.

(2).—Nor do I think it was at any time so bad as to affect their physical condition.

(c) (1) and (2).—The scale of wages was sufficient to keep all in bodily health.

(d).—*Nil*.

(e).—The distance test was only imposed in the cases of those who lived in villages near the works, and who had been refused a *parcha* of admission to the nearest work. This must have kept our numbers down by (2) one-third to half I think, but I do not think it increased our death-rate, as no one was ever refused who was in straightened circumstances, or in a physically weak condition.

114. The massing of people on large works has not interfered with the family tie, or weakened moral ties, but I think it has lessened to a certain extent the moral obligation which exists in all villages to contribute towards the support of their own poor. This can never be avoided now. The people have fully recognized the duty undertaken by Government to save human life, and will only be too ready in the future to shift the burden from their shoulders to that of Government.

MR. MACDONALD, LATE EXECUTIVE ENGINEER, ROHTAK.

The President.—You had not very bad famine in Rohtak, and your numbers are not very large; the numbers shown do not include dependants, while other districts do?

A.—We paid dependants an allowance; very few dependants came to works.

Q.—You heard about the payment by results and the Code-task systems, the characteristic difference is the minimum wage; I understand you had no minimum?

A.—No.

Q.—It was payment by results with certain doles for dependants?

A.—Yes.

Q.—Did you find the labourers usually give you a full work for which you paid them?

A.—Yes, on the whole we got very good results from the labourers.

Q.—There was no malingering?

A.—No.

Q.—Your people are an industrious sturdy people in ordinary times?

A.—I have only been employed in these parts for a year; from what I saw they seemed to be willing to work.

Q.—Do you think your payments were such as to attract any persons who were not really in need of relief?

A.—I should say not.

Q.—Because your payments were considerably more than have been paid in other provinces, you gave 25 per cent. plus 15 per cent. for dependants, plus payment to children in kitchens?

A.—But the actual grain wage during the summer was only 18 for the digger; we paid him his Sunday wage plus his percentage for dependants, which should not be considered, because in other cases dependants were paid separately, and we allowed a man to work extra, which if he did, he got 25 per cent. extra.

Q.—Did a great number do the 25 per cent. extra?

A.—No.

Q.—Was that due to physical weakness?

A.—I think they were people from towns and disinclined to work.

Q.—You never had compulsory residence on works?

A.—No.

Q.—Do you consider that the work was not more than was needed?

A.—I think that after the selection system was adopted we had no people who could have stayed away.

Q.—What was that?

A.—The ticket system.

Q.—Will you explain that?

A.—We only admitted those people to works who were authorized by the Civil authorities to obtain relief; at first everybody who applied was admitted, but in February we noticed, merely from their appearance, that many of the people were well-to-do and then the system of admission by ticket was adopted under the Commissioner's orders; it only applied to villages within a certain distance of the works.

Mr. Bourdillon.—What was the radius from which tickets were required?

A.—I cannot say; it was laid down somewhere.

The President.—Are you in favour of the bi-weekly or tri-weekly system of payments?

A.—I prefer the system of daily payments. We had daily payments entirely.

Q.—You found no difficulty?

A.—No: we paid the heads of the gang.

Q.—Had you nominal muster-rolls?

A.—Yes.

Q.—Could you have paid individuals?

A.—It would have taken long and we should have required more cashiers.

Q.—How many had you?

A.—Three for a charge of 5,000.

Q.—Is it your experience that where people coming from the same village choose their own mate, you are certain to hear of any abuses that may occur in the distribution of the wages?

A.—Yes.

Mr. W. Macdonald.

Replies to questions drawn up by Mr. W. Macdonald, Executive Engineer, Punjab, to the Famine Commission, appointed by the Resolution of the Government of India, No. 11—2943, dated 20th December 1900.

Employed from 21st December 1899 to 25th June 1900 as Executive Engineer of the Rohtak Division (Famine), and subsequently Superintendent of Works, Special Famine Circle, Punjab, until the Circle was closed on 7th October 1900.

1 to 18. Apparently for Civil Department.

19. Regular Relief Works under my charge in the Rohtak District (*i.e.*, Rohtak Division) consisted of large *central* tanks (*i.e.*, not belonging to any one village in particular), and as such would be classified as Public Works (Local Boards).

20. The works were under the control of the P. W. D., in consultation with the Civil authorities. So far as I am aware, the scale of supervising establishment had not been prescribed, but the N.-W. P. Code was taken as a guide, and in that Code a scale is laid down in Appendix D XIV; I have since prepared a revised scale for use in the Punjab, which is given in the rough draft of Code for the revision of which Mr. Humphreys, Deputy Commissioner, and I were deputed.

In accordance with Punjab Famine Code, officers in charge were supplied by the Civil Department, and by the courtesy of the Deputy Commissioner, Rohtak (Captain Burlton), I was able to procure Cashiers, Moharrirs and men for guarding treasure from among those whose names were borne on the district lists as suitable for employment. Such Sub-Overseers as were not obtained from the regular P. W. D. Staff and work agents were appointed by me subject to the approval of the Superintending Engineer, and the appointment of other minor officials by the Sub-Divisional Officers (P. W. D.) and by officers in charge was subject to my approval. Only six large works were in progress in the Rohtak District and there was no difficulty in providing for these the necessary establishment; in fact we had men in reserve to be utilized in the event of it being found necessary to open up more works, two of which were ready to be taken up at short notice. Very few of the Moharrir class were really competent, but most of these men were soon able to carry out the work required from them.

There was never any delay on our part in opening works when called upon to do so, as the Deputy Commissioner always gave us timely notice.

A sufficient quantity of tools and plant was available and no difficulty was experienced in maintaining the supply, as the chief articles required, *viz.*, *photovaks*, picks and baskets, can all be manufactured at Delhi.

21. Each of our works was of sufficient magnitude to constitute a charge. The size of a charge was based on the figures given in the N.-W. P. Code, but the Commissioner did not fix any actual limit, although we were supposed not to let the numbers on any one work exceed 6,500 people, *i.e.*, workers. At one of our works the number of workers rose at one time to over 8,000 and steps were taken to relieve the pressure by drafting to other works which were not so crowded. The crowding on the work in question was probably due to the fact that it was near the town of Rohtak.

22. Each charge had its own establishment. The establishment generally consisted of—

One Officer in charge.

One English-writing Clerk.

One Vernacular-writing Clerk.

Moharrirs according to number of gangs, generally 1 to 4 or 5 gangs.

Sub-Overseers and work agents, 3 or 4 per work (charge).

Treasure Guard 1 Daffadar and 4 men.*

Chowkidars, water-carriers and sweepers as considered necessary to suit the conditions obtaining.

Cashiers, 3 to 4 per work (charge).

Hospital Assistants, 1 per charge.

Compounders, 1 per charge.

Prior to the opening of each work arrangements were made for—(a) hutting, (b) conservancy and sanitation, (c) water-supply (d) food-supply, (e) medical requirements.

(a) Huts for the people were of plain mats on bamboo frames, and some difficulty was experienced in making the people keep the huts on the sites allotted for that purpose. Huts to hold 4 or 5 people cost about R2 each, and were much damaged by dust-storms. I think that huts with roughly made walls of mud should be provided, if possible.

(b) In the early stages of the work yellow flags were put up to indicate the places to be used for purposes of nature, but subsequently, at the request of the Sanitary Commissioner, the trench system with enclosed latrines was resorted to. Every endeavour was made to keep the works, camp, and country in the vicinity clean.

(c) Water-supply. All precautions were taken to obtain and keep up a pure supply on the lines suggested in D X IV, N.-W. P. Code. Kerosine tins were found to be too flimsy for carriage of water, and iron tanks were purchased and conveyed from the source of supply to the camp and work

* I write from memory.

on carts. Sufficient cattle were available for draught purposes.

(d) Food-supply. A market was opened at each work, but some difficulty was experienced in persuading banias to take up the work. The objections raised were—

(i) Discomfort of camp life as compared with life at home.

(ii) Insufficient sales.

(iii) Prohibition of sale of inferior grain, the sale of which is permitted elsewhere.

(iv) Rates being fixed at those prevailing in tahsil in which work was located. At first allowance was made for carriage of grain, but it is difficult to calculate what this should be, as the marts from which grain is to be bought cannot be fixed. Subsequently the banias were allowed to charge at a rate two pice in the rupee over that obtaining in the tahsil.

(e) A hospital was provided at each work and the general arrangements in connection with medical matters were left in the hands of those competent to deal with such matters. At the same time, to the best of our ability, we gave our attention to this point by seeing that the sick and feeble were attended to.

23. At first all ready to work were admitted, but subsequently a system of selection was adopted. The process of selection was effected by the Civil authorities. No distance test was insisted upon and residence in camp was optional.

24. I refrain from replying to this, as a definite answer can be obtained from the Civil authorities, to whom figures were supplied showing all the villages from which people came and the number from each village.

25. I did not consider myself subordinate to the Civil authorities, but rather as co-operating with them. I was in constant consultation and communication with the Deputy Commissioner, and believed that I carried out all wishes expressed by him. All grain wages were fixed by the Commissioner and except at one period when the cash equivalent was also laid down by that officer we calculated this equivalent. Tasks were set by the P. W. D. officials under my orders, and we had practically a free hand in this matter as well as in the prosecution of the work in hand.

26. Yes. In the Rohtak District generally taken from the Girdáwar Kánúngo class. The salary was at first fixed at Rs50 per mensem, but in the case of two or three selected men it was raised to Rs75 (I have no papers here and am not quite sure of the figures last given). These men were placed entirely under the orders of the P. W. D.

All officers in charge had full authority to assure themselves that measurements were correctly and punctually made, but I do not think that so far as accuracy is concerned they can be expected

to exercise such authority, for Sub-Overseers would generally be more competent in this respect. I have not been supplied with report of Famine Commission, and as time is limited I can, if so desired, answer the rest of this question when called upon to appear before the Commission.

27. Tasks were set by the P. W. D. officers, and the officer in charge could reduce or increase these if necessary to suit the conditions obtaining. This is a question to which we paid special attention as we had great variations of soil, the task per digger varying from 25 cubic feet to 200 cubic feet on different parts of the same work. Whenever inspecting we scrutinized the tasks set and the men employed for the purpose were soon able to determine what the tasks should be. As regards tasks for carriers, during the course of operations we received orders to test the feasibility of introducing different co-efficients or constants of labour to suit the variation in soil. Appendix B of the Punjab Code was framed in accordance with the proposed alterations in this respect.

28. The gangs were constituted, so far as was possible, so as to get 5 carriers per digger as an average, but where this could not be done carriers had to be utilized as diggers. The gangs varied in size from 40 to 80, and arrangements were made to keep people of the same family and from the same village together as much as possible, and no difficulty was experienced in doing this.

29. In accordance with Punjab Code, labourers were classified as (1) diggers, (2) carriers, (3) working children.

Statements as to age are misleading, and the selection of workers for the younger part of class (2) and for class (3) *in toto* has to be decided rather on the question of physical fitness than of age.

During the cold weather months the Commissioner (Delhi) fixed the grain wages for workers at 20,* 14 and 8* chitaks respectively, for the three classes above named, but as the warm weather approached those wages were reduced to 18, 13 and 7 chitaks.

30. I consider that women should not be classified as diggers; if unavoidably employed on digging they should have not more than one-half of the digger's task and receive carrier's wage. I see no reason for drawing any distinction either in task or wage between men and women classified as carriers; we had no such distinction and no objections were raised. Classification depends on physique and the wage given is that considered sufficient for the sustenance of the individual admitted to employment, and as the capacity for work is regulated by the physical capacity, those enlisted in the same class should do the same quantity of work and get the same wage. It is, however, necessary to remember that some of those admitted to the carrier class are not so strong as

* I have no papers here to refer to.

others, but when work is done by gangs, the members of which have interests in common, those better able to work can generally do a little more to make up for those not quite so strong.

As regards the financial aspect, in any system in which tasks are laid down for each class the employment of carriers, either male or female, as diggers is expensive at the wage quoted above. In the case of the male carrier employed as a digger the task set is two-thirds that of the digger, and for a woman so employed the task is half only. Now the digger's wage being 18 chitáks, two-thirds of his wage is 12 chitáks, but we pay the carrier 13 chitáks and in the case of the woman we put her digging value at only half that of the digger, but give her $\frac{1}{18}$ of his pay. It does not, however, appear financially unsound to give men and women carriers the same wage, for in this class of work the women appear to be able to compete successfully with the men who would at the time of classification be relegated to the carrier class.

31. At first the system adopted in Rohtak was pure piece-work, inasmuch as a rate was struck for the work, based upon the wages fixed; and the value of work done at that rate was divided among the people, gang by gang. The system seemed to me objectionable as the conditions upon which the rate was struck could not obtain with famine gangs and the division of the money in the proper proportion for the different classes necessitated too much calculation. I therefore suggested that each gang should be tasked, the task being set to suit the assumed working capacity of the gang, and that it should receive payment in proportion to the work done, the amount due to each member being the normal wage multiplied by a fraction, the numerator and denominator of which would be the work done and task set, respectively. The proposal was accepted, and I prepared the necessary table for facilitating calculations of amounts due. It will be seen that both systems were of payment by results; and no other system was tried.

32. I consider that the latter system alluded to in the preceding sentence can be adopted throughout a famine. All that is necessary is to satisfy yourself that the tasks allotted to the people are such as they may reasonably be expected to perform.

33. We practically set full tasks from the outset, but were lenient with the people until they got accustomed to the work: each gang was expected to do its full tasks, and people who were not considered fit to work on the heavier kinds of work were given light employment. No allowance was made for distance. When the hot weather was fully established, I suggested that tasks should be slightly reduced, and this was done.

34. I consider that the scale of wages was adequate for the diggers and carriers, but perhaps a little tight for the children. On the whole the people kept in very fair condition except babes in

arms and a few children. There was not much evidence that the workers saved, but the general opinion is that those of a frugal disposition did save.

A great deal of the copper coin issued did not return to the banias on the works, for the people frequently purchased their supplies from adjacent villages.

35. For some time a rest-day wage was given to all, but the concession was subsequently withdrawn from those not residing in the camps. In addition to this the workers could earn up to 25 per cent. over the normal wage by doing work in excess of the task set, a proportional part of the higher wage being given for any amount done in excess. Option to carry out work in excess of task was afforded with a view to encouraging the people to work and not for the purpose of providing a rest-day wage. If the system of selecting those eligible for relief is resorted to, I would give a rest-day wage to all relief workers whether residing in camp or not. I see no advantage in holding out inducements to people to reside in camp.

36. We had no minimum wage: provided that a fair task is set, no injustice is done in making payments strictly by results. Short work carries its own punishment.

37. As already stated, there was no minimum. I think, on the whole, the average wage earned had a tendency to be slightly above rather than below the normal wage.

38. Payments were made daily.

39. All were paid daily.

40. The money for each gang was handed over to the mate of the gang and checked and to each class of workers was made known the amount due to each member of that class (the same amount to each); the money was then distributed to the members of the gang collected together for the purpose. I found this method quite satisfactory.

41. I am unable to give this information.

42. The system adopted is explained in reply to Question 31.

43. The maximum wage was 25 per cent. over normal. The normal wage consisted of actual wage as laid down for each class + $\frac{1}{6}$ for Sundays + 15 per cent. for dependants. Weakly persons capable of some work were employed on light work, such as dressing of spoil, plastering of baskets, etc., and were given the minimum wage.

44. No.

45. We always kept muster rolls.

46. The cash equivalent of the grain wage was calculated by us. I issued a ready reckoner allowing for half seer variations, but I found that at the camps calculations were often made independently based on the actual value of the grain. When revising the Code, I drew out a fresh wage table to allow for all variations in price; this table is

with rough draft of Code. The grain upon which our prices were fixed was *béjar*, a mixture of barley and gram.

47. The admission of labourers was carried out on the lines laid down in Appendix D XIV of N.-W. P. Code. The able-bodied men were picked out for the digging work, and the others were grouped with the women and older children as carriers; while from the others were selected those thought fit to be classified as working children. No count of dependants was taken as the maintenance of these was allowed for by a percentage on the wage of the workers. After each gang had been made up the necessary tools were issued and the gang was then sent on to the work. As regards tools and plant all arrangements were made for these prior to the opening of each work. Huts sufficient for about 2,000 people were ready and placed in the position intended for them, each camp being laid out on a regular system; we generally had a certain number of huts in reserve and could easily procure more at very short notice. The work upon which the labourers were engaged consisted of tank excavation, and was marked out carefully in strips, each of which was numbered and was of such a size as to afford work for one gang. Each gang was numbered, and we generally tried to arrange the gangs so that each of them was employed upon the strip bearing the same number as that by which the gang was indicated. The day's work for each gang was marked out for each day on the evening of the day before and to all the gang was pointed out the work to be done and the price to be paid for it was also intimated. The work was measured daily in the presence of the gang and the amount done was recorded on the muster rolls, and upon this the amount to be paid was calculated by comparing the amount done with the task set, which also was shown on the muster roll. The wages due were paid each day: at first the payment for any one day was made on the day following but to enable our employés to check the calculations more carefully I arranged to pay the wage earned on Monday on Wednesday, instead of on Tuesday, and so on. Before any payment was made the officer in charge was supposed to satisfy himself that the amount allowed for was due and to authorise the payment by attaching his signature to the muster roll. Practically we had no fines, as the system of payment by results does not require any such. The arrangements for conserving the water-supply were those suggested in D XIV, N.-W. P. Code, with slight modifications to suit local conditions.

All arrangements for hospital requirement were in the hands of the Medical Department; we merely provided the accommodation and carried out extra any measurers in connection with provision of huts for contagious diseases, or such as might be required for moving camps.

48. The general question of tasks and wages was settled by the Commissioner, but, as I stated

before, in the actual setting of tasks we were allowed to exercise our own discretion.

49. The people were only drafted from the large public works to small village works when the operations were coming to an end, as it was thought advisable to give the people work nearer to their villages, but really very little was done in this way. I had left the district before the closing of the works and cannot therefore give evidence from personal experience.

CAPTAIN P. M. LOWIS, DEPUTY COMMISSIONER, KARNAL.

The President.—I have not got the figures for Karnal before March. Had you any relief operations before March?

A.—Very small ones, only road raising works to keep wanderers going.

Q.—Had you the payment by results system on Public Works?

A.—No; we had the minimum wage, which was only given in the case of people not doing the full task; practically it was never used, or very little.

Q.—Did the people do the full task?

A.—Yes; willingly, as a general rule.

Q.—Did you give permission to earn more than the normal wage?

A.—No.

Q.—Did you pay dependants?

A.—We began with test works and in special cases a few dependants got an allowance; if there was a working man and woman with 5 small children we would give an allowance for two children, and when the works were converted into relief works, we started kitchens and paid nothing.

Q.—You had kitchens?

A.—We were the only district that had.

Q.—Attached to works?

A.—Only on works.

Q.—When did they begin?

A.—As each work was turned into a relief work.

Q.—Did you pay daily?

A.—Yes, after a short time; we didn't begin with it, but the people complained that not having daily payment they had to go hungry for the first three days as the *bania* would make no advance.

Q.—Did they complain of the *bania* taking interest?

A.—No.

Q.—Has the full *kharif* area of 1900 been sown?

A.—Very much more than the full area.

Q.—Is there any point upon which you think the Famine Code needs revision?

A.—I think it is too hard-and-fast; it is not elastic enough to suit districts like mine where the famine is not acute; it presumes that the people are actually starving.

Q.—Not necessarily; you might adopt the payment by results system?

A.—But the people won't have the payment by results system.

Q.—You have been working it?

A.—Only with one small class of workers.

Q.—You never paid the minimum wage?

A.—No; it was only used as a punishment.

Q.—Say the task was 100 cubic feet and the gang did only 75, what would you pay?

A.—It was left to the discretion of the officer in charge. He would probably fine them a pice or two pice a day.

Mr. Nicholson.—Dependants were solely relieved by kitchens?

A.—They were relieved by cooked food, not by cash doles.

Q.—From what you say in your answer to question No. 33, you mean, I suppose, that if the ordinary task was 100 feet these people had to do 115 feet; was that in force throughout the famine?

A.—No.

Q.—Did that result in short work by the people?

A.—No; they made it up without grumbling.

Q.—What were the standard plan tanks referred to by you?

A.—Mr. Campion, the Chief Engineer, made a standard plan tank for famine purposes, 1,200×600 feet.

Q.—Was that irrespective of the need of the village; was it merely a conveniently measureable work?

A.—Yes; we had some eight or ten places selected for this.

Q.—They were opened at those places which seemed most convenient?

A.—Yes.

Q.—The orphans in your district were handed over to people of their own caste or village?

A.—Yes; in every case. We sent them to the Hindu Orphanage at Ferozepore, and some were made over to Muhamadans.

Mr. Bourdillon.—Were these standard plan tanks the best thing that could be done?

A.—I think they are far preferable to raising roads; in that case we would have had 30,000 instead of 12,000 on works.

Q.—Is there any scope for carrying out village works?

A.—Where they are wanted there is no distress, the tanks are the best thing that could be done.

Q.—Were you much troubled by immigrants?

A.—No; very little.

Q.—From where did they come?

A.—From several States, they called themselves *Bagis*, and a few said they were *Bikaniris*.

Q.—Did they come in a very bad condition?

A.—They were in a worse condition than our men.

Q.—Your mortality was below the average; had you cholera later on?

A.—Yes.

Q.—Was the fever pretty widespread?

A.—Yes; the rich suffered as well as the poor.

Rao Bahadur Syam Sunder Lal.—Had you any difficulty about the supply of fodder?

A.—Yes; there was no fodder at all; when we advanced people *takávi* they found no difficulty in importing it, but it was very expensive.

Q.—Was there not much emigration of your cattle to other districts?

A.—Yes.

Q.—Where?

A.—Some to the hills of Nahan, some to the Jamna, some went to a big *jhil* near the Tarái in the North-Western Provinces.

Q.—Are these the places to which they generally go in seasons of scarcity?

A.—As a general rule they take some cattle away in the hot weather, even in normal years.

Q.—Is there not a quantity of waste land in your villages?

A.—Yes.

Q.—Could not that be used for preserving fodder or grass?

A.—I am making some enquiries now, the villagers say the grass won't keep.

Q.—It will keep 10 or 12 years?

A.—I am asking the Government farms; the grass grown in these wastes is rather inferior, then people take their cattle to the superior grass on the riverside.

Replies of Captain R. M. Lewis, Deputy Commissioner, Karnál, to questions drawn up by the Famine Commission, 1901.

INTRODUCTORY.

1. When the rains of 1899 commenced the outlook in the Karnál District was fair. There had been almost normal crops from Kharif 1897 to Rabi 1899. Taking 100 as the normal crop the harvested areas were respectively as follows :—

Kharif 1897 . 140	Rabi 1898 . 82
Kharif 1898 . 101	Rabi 1899 . 75

2. These figures, however, hardly represent the state of affairs in the affected parts of the district, as by far the greater portion of the harvested areas was in irrigated tracts.

Kharif sowings of 1899 were above normal by taking the average of the five years, 1891—1896, which were normal years.

3. The average rainfall of the district from 1st June to 15th September is about 20 inches; during 1899 it was 7 inches, or one-third of the average.

The rains ceased on the 24th July. During June the rainfall was in excess and thence to September in large defect.

4. The harvested area of Kharif 1899 represented 42·5 per cent. of a normal harvest, but as noted above this was practically all in the irrigated part of the district.

5. Impossible to arrive at correct figures.

PRELIMINARY ACTION.

6. Necessity of relief was really assumed from the fact of crop failure, though each work was begun as a test work.

7. The physical condition of the people observed by officers on tour, the kind of food eaten, and the emigration from the villages.

8. In the first place test works (raising roads) were opened in the neighbourhood of Karnál and Kaithal. One hundred to one hundred and twenty-five cubic feet of earthwork was allotted to 1 digger and 2 carriers as task in ordinary soil, and 150 cubic feet in light soil, and wages paid as follows :—

Diggers	18 Chitaks.
Carriers	13 „
Children	7 „

9 (a).—Lists of relief works were ready, and in most instances these had been located and surveys and estimates prepared beforehand, but as a matter of fact these lists were abandoned in favour of the

rainfall and floods are sufficient for agricultural operations.

In 1900 some wells in the affected tract had to be left unworked for want of cattle, so it was useless to dig more wells even had there been time. Elsewhere in the affected tracts irrigation from wells is almost impossible owing to the great depth from the surface to water.

15. The works first undertaken were roads under the District Board as noted above. They were conducted under the supervision of the Deputy Commissioner, Karnál, and of the Sub-Divisional Officer, Kaithal.

When the tanks were opened as test works they were under the Public Works Department and were supervised by the Executive Engineer, Umballa Division.

16. One hundred to one hundred and twenty-five cubic feet of earthwork was exacted and insisted upon from 1 digger and 2 carriers; women and children were generally engaged as carriers—2 children between 7 and 12 counting as 1 carrier.

17. Piece work was not given on test works. Those who wilfully neglected to complete work according to the task given were fined to the extent of 1 or 2 pies. Rest-day allowance was not allowed, nor allowance to dependants except in very rare cases.

18. Increasing numbers.

19. Has been answered above.

20. Has been answered above. In only one case was there a delay of a few days in opening a work owing to the negligence of a Public Works Department subordinate. Tools and plant were available.

21. Each tank was a charge providing for 5,000 workers for six months. The maximum was exceeded for 15 days at one tank, but it was not then necessary to take steps to relieve the pressure.

22. Each charge had its own establishment, which consisted of 1 Sub-Overseer, 2 Work Agents, 4 Mistris, 2 Clerks, 1 Muharrir for every 500 labourers, 3 Cashiers, 1 Store-keeper, 1 Superintendent of Kitchen with 2 Muharrirs, also one Recruiting or Registration Muharrir.

Before each work was opened materials had been collected for hutting the people. As they came they made their own shelters with the material supplied.

For conservancy limits were marked out within which the camp residents might relieve nature, and from among the sweepers who came for relief a certain number (according to the number of workers) were told off to keep the area marked out clean by collecting and burying the filth.

For water-supply wells were chosen, disinfected and guarded; Kahárs or Brahmins entertained to draw and distribute water at the camp and at each corner of the work. The water was brought from

the wells in kerosine tins, subsequently in iron vats by bullock cart.

For food-supply Baniás were brought in and given huts similar to those used by the establishment; they made their own arrangements for procuring supplies, about which there was no difficulty.

For medical conveniences and supervision each work had its dispensary, hospital, contagious and infectious wards; and a Hospital Assistant was in medical charge of each work. The Civil Surgeon paid frequent visits of supervision.

23. Admission to the works was free to all persons ready to submit to the labour test. No system of selection was tried. No distance test was insisted on, nor was residence on the works compulsory.

24. I had no experience of a work capable of entertaining two charges of 5,000 people each, nor do I think that such a work would be suitable to that part of the district subject to famine. The greatest distance any of the people of the district went for relief was about 30 miles. The majority of the workers came from within three miles.

25. Officers of the Public Works Department and of the Civil Department worked so completely in harmony that it is hard to say whether the former were independent in any matter. The Executive Engineer and Deputy Commissioner and the Sub-Divisional Officer, Public Works Department, and Sub-Divisional Officer, Kailthal, were continually meeting and discussing arrangements. No important steps were taken by officers of either Department without verbal discussion or semi-official correspondence.

26. Each charge was under a Civil Officer, either a Naib Tahsildár or a Field Kanúngo.

The salary of Naib Tahsildár was R60 plus R12 deputation allowance, and the salary of Field Kanúngo R50 per mensem.

The local representatives of the Public Works Department were subordinate to him.

He had full authority.

27. The Civil Officer decided such points pending the next visit of the Sub-Divisional Officer, Public Works Department.

28. These matters were settled by the Public Works Department Officers assisted by the Civil Officer in charge. As far as possible zamíndárs were kept separate from menials, and gangs were made up as far as possible of workers from the same village and family.

29. The labourers on works were classed as follows :—

Special Class—

I—Diggers ;

II—Carriers ;

III—Working children ;

and the scale of wages adopted—

Special Class —

One pice more than the wage of diggers, who got 18 chitáks grain value; carriers 13 chitáks and working children 8 chitáks.

This scale was raised during cold months from December to February by 2 chitáks in case of Classes I and II.

30. The only difficulty experienced was when a man able and willing to dig had to be employed as a carrier owing to a superfluity of diggers. This, however, did not occur often, and the difficulty was met by paying him as a digger and counting him in the ganging as a woman and child.

31. The task system was adopted from the outset. A few workers on one work were allowed payment by results, as they were professional diggers and their dependants did not come to the work. The others were given the option of payment by results or tasks and were unanimous in choosing the latter.

32. I am certainly of opinion that a system of payment by results is unsuited to ordinary large relief works. It might answer on small village relief works; in fact, our advances to villages for digging their own tanks were made somewhat upon this system. The chief difficulties of the system on large works are arranging for the ganging of the weak and preventing dishonesty on the part of minor officials.

33. Task was exacted on large works from 100 to 120 cubic feet from 1 digger and 7 or 8 carriers, according to the quality of the soil and the distance of lead. Fifteen per cent. extra task was demanded from those labourers who were coming from a distance within three miles of work, but were not residing in camp. This system was adopted from March 1900 to end of famine.

34. Judging by the improvement that took place in the condition of the workers I consider that the wage was adequate when dependants were fed at the kitchens. When the latter received cash allowances I consider that in the case of menials and perhaps of zamíndirs the wage was unduly liberal, for the condition of the dependants improved enormously as soon as the kitchens had been open a week. It was impossible to tell from the return of copper coin to the Baniás on the work whether the workers were saving anything from their wages. Most of the workers did not live in the camps and had to deal with their village Baniás to whom they were indebted. I made careful enquiries, but could find no evidence that money was being saved to any extent, except perhaps during the few weeks that the workers were able to supplement their earnings with wild products. On the works the Baniás kept little but the more expensive kinds of grain, and said the people would not buy the cheaper kinds; that being so, the camp residents at all events could not have saved anything out of their earnings.

35. When the works were converted from test into relief works, a rest-day wage was given. By the task system (which I prefer) the people could not earn enough to support themselves on the rest day, and continual complaints were made as long as the works were kept as test works, that the people had to go hungry on the rest day because they were not allowed to work nor given a subsistence wage.

36. I consider that the minimum wage is not too high provided that a full task be set, rigidly enforced, and continued contumacy punished by total exclusion from the work for a period of not less than three days.

37. The minimum wage was the penal wage, but it nowhere became the wage generally earned, partly because the people as a rule worked cheerfully, and partly because of the resort to the above-mentioned punishment for continued contumacy.

38. Payment was made at first bi-weekly, and then, as continual requests were made for more frequent payments, daily. I consider daily payments both desirable and practicable.

39. The Baniás on the works would not give credit, so daily wages were really a necessity.

40. Payment was always made to the individual. I had no experience of payment to the head of the gang except in the case of the few piece-workers referred to above; in their case it worked well, but they were all members of one small community generally related to one another.

41. The table below gives for two large works at the time of greater pressure the earnings of workers for one week as well as for one day:—

Name of work.	Number of units for one week.	Wages earned.	Fines.	Average earning per unit.	Average fine per unit.
		R	R	R a. p.	
Padla . .	28,794	2,191	9	0 1 3	·05 pice
Chbatar . .	22,684	1,635	173	0 1 2	1·49 pice
TOTAL .	51,478	3,826	182	0 12·25	·78 pice

	Labourers.	Earnings.	Fines.
		R	R
Total average for one week	7,354	3,826	182

42. There was no general system of payments by results. In the one instance in which it was in force the Executive Engineer worked out the rates. I did not enquire into the system, merely satisfied myself that too much was not being earned. By very hard work the piece-workers (who, as I have noted above, were professional diggers) earned on the average $3\frac{1}{2}$ annas per diem, or about the same as a family of one man, one woman and one working child; and considering the amount of work done, and that they supported their own dependants, I consider that this was not excessive.

43. The maximum wage was 7 pice digger, 5 pice carrier, 3 pice working child. Such children as could work received the working child's wage or

3 pice per diem ; for the rest at first an allowance was made and then kitchens were opened. It was then found that the menial classes were continually endeavouring to get their children passed as working children, and continual supervision was necessary. Weakly persons capable of some work were put on light labour, and, as their strength increased, their work was increased. No one was put on to do any work unless they were capable of doing a child's task, and then they were put into a gang and classed as children till their strength increased; such cases were rare.

44. Contractors were I think employed for supplying and bringing to sites of works hutting materials, not otherwise.

45. Does not apply to this district.

46. Under the orders of the Deputy Commissioner. Bejhar or gram and barley mixed, and subsequently on wheat and gram; variations involving a difference in wage of less than one pice were disregarded.

47. As soon as the Deputy Commissioner saw that a relief work would have to be opened in a particular locality, he informed the Executive Engineer, the District Superintendent of Police and the Civil Surgeon. The sites had been selected beforehand. The Executive Engineer informed the Deputy Commissioner of the date on which he would be ready to open the work. The District Superintendent of Police then arranged for the treasure guard (till the system of employing pensioners was adopted) and the Civil Surgeon arranged for the appointment of a Hospital Assistant and supply of necessary medicines. In the meantime the Executive Engineer had huts for the establishment erected, materials collected for hutting the workers, and arranged for tools and plant. Wells previously selected were taken over, and compensation to the owners, where necessary, assessed. Wells were disinfected and arrangements made for carrying water to the work. The well was enclosed with a thick thorn hedge, and on the work being opened a Mate was stationed at the entrance and allowed no one but the Kahárs to enter.

The proposed tank was marked out into strips by dágbels and flags. The yellow conservancy flags were placed in position and a big red flag placed in a convenient spot as the recruiting centre. The people were informed through Zaildárs and Headmen of the date when the work would be open. The recruiting centre was generally marked off into small spaces, and each family was collected into one such space so as to ensure all being brought on the list together, and, so as far as possible, kept in the same gang. As fast as registering went on gangs were made up, Mates appointed and given a flag and a badge each bearing the same number, and the attention of the whole gang was directed to the number which corresponded with the strip of tank assigned to them. At the time of ganging classification also went on, and when the gang was complete the Muharrir took charge and made up his list. Such

people as intended to reside on the work were directed to the godown, where they were given materials for hutting, and then were pointed out their place in the camp where they were to build it, and were shown how to do so. Sweepers were selected at the recruiting ground for conservancy purposes and put under a Mato. It has been pointed out above that before the arrival of the people the tank had been marked into strips and to these strip gangs appointed. Each Mate of a gang had a stick with feet marked on it, and he was instructed every morning how many feet in length of his strip had to be dug to the depth of one foot, and further how much was the task of each digger under him. He then marked this on the ground, which was verified by the Mistris. At the close of the day's work the Sub-Overseer, Work Agent and Mistris went round and could see at a glance whether any of the task of any gang was incomplete, measured it up, made a note, and reported to the Civil Officer in charge, who noted it and generally checked it. Regarding payment, the Muharrir called his roll every morning; in the evening he took it to the officer in charge, who signed it, noted the amount due after deducting any fine that might have been imposed, and sent the Muharrir to the Cashier, who then put the amount noted by the officer in charge into a bag marked by the number of each gang, and took it where the gangs were collected and paid himself to each individual the amount due to him in presence of the Gang Muharrir, who called out names of labourers and the amount due to him.

48. Tasks were fixed by the Public Works Department officials; the Deputy Commissioner supervised and made suggestions. Wages were fixed by the Commissioner.

49. No.

SMALL VILLAGE RELIEF WORKS.

50 to 57. It will be more convenient to give one answer to all these questions.

There were strictly speaking no small village relief works, but takávi advances were made to some villages to enable them to provide work for their poor in digging out their village tanks. The land-owners of the village are responsible for repaying these advances, which were made as follows: A certain sum was placed at the Collector's disposal for the purpose, and allotments were made to certain villages; to each $\frac{1}{4}$ of its allotment was advanced; when sufficient work had been done another $\frac{1}{4}$ of the allotment was advanced, and so on. The sufficiency of the work was calculated according to the number of cubic feet excavated on the nearest big relief work at the cost of the amount allotted. The measurement was done by Patwáris and supervised by the Sub-Divisional Officer, Kaithal, but otherwise the arrangements were left entirely to the villagers. These works did not affect the larger works, as they were started only in villages whose inhabitants would not from caste prejudice or other reasons have resorted to a larger relief work.

58 to 65. There was no form of special relief in this district.

GRATUITOUS RELIEF.

66. Dependants on large relief works were at first relieved by a cash allowance, but subsequently kitchens were opened, which proved a little more expensive but much more satisfactory. Mothers with children at the breast received one pice per diem more than other women.

On the village works no dependants were relieved.

67. Gratuitous relief took the form of distribution of cash allowances by the Circle Inspectors; it was the only form of gratuitous relief possible.

68. No. They were selected by the Circle Inspectors and the lists were checked by the officers on tour.

69 to 71. None.

72. Kitchens were only opened on the relief works for the dependants of the workers. One of these was kept open for a few days after the relief work had been closed for the support of the children of the villages within a radius of about three miles. This was a special case.

73. Cooked food, *dál* and *chapati* were given in daily meals twice a day, and rice and *dál* once a week. *Khir* or rice cooked in milk was given to weak children. Meals were distributed morning and evening at a fixed hour, which was altered occasionally according to the time of year. People had to feed on the premises and could not, and indeed showed no disposition to, take food away.

74. There were no civil kitchens.

75. Restricted to dependants of workers.

76. No poor-houses.

77. Circle Inspectors. Revenue officials on tour, constantly.

78. (a) Cash, (b) weekly, (c) at the homes of the recipients.

79. To none.

80. Brahmins. No reluctance to take cooked food was shown at any stage by any class.

81. Superintendents were appointed by the Executive Engineer under whose control they were. The Civil Officers in charge of course assisted.

82. None were actually opened.

83. No.

84. Revenue suspended in 1899-1900 Rs. 2,28,521. No remission made on account of famine.

85. Suspensions were based primarily on crop failure and the previous revenue history of the village. In a few instances suspensions were not proposed where the land-owner was a wealthy

man or had other sources of income, but such cases were rare. In only one case was a complaint made and the revenue due from the complainant was after enquiry suspended. On the other hand, there were many instances of voluntary payment of suspended revenue.

86. Before collection of revenue began.

87. There are no zamíndári tracts in the district.

Tahsildár primarily, *i.e.*, in sending up his proposal for suspension he would note that of the total revenue due from the village so much was due from so and so, a wealthy maháján, or by such and such a class, who for reasons given could pay the revenue. The actual decision lay with the Collector.

88. No.

GENERAL.

89. The number never did exceed 15 per cent.

90. No, except with regard to the Rájpúts.

I believe they suffered severely (though there was no actual mortality from starvation) owing to their pride keeping them from taking advantage of relief works, and, in many cases, of any kind of relief. For the rest the works were not sufficiently attractive to induce any but destitute people to attend them, nor were they so unattractive as to render starvation preferable.

91. The major portion of the recipients of relief were "kamíns" or village menials, but a very large proportion were land-owners; in some cases even Lambardárs were on the works.

The average figures for menials and zamíndárs were as follows :—

Zamíndárs	.	.	.	4,449
Menials	.	.	.	5,132

92. I have had no experience of former famines; the people said they had never experienced so bad a one. They were on the whole by no means ready to come on to relief works or even to seek gratuitous relief.

93. There were general complaints of contraction of credit. Till after the rains I had no reason to believe that any persons had not exhausted their own resources before accepting State relief. I am now of opinion that a certain proportion of the zamíndárs were in possession of seed grain when they came on the works, but I have no actual proof of this.

94. Ample in my opinion for zamíndárs; as to kamíns, I am doubtful.

95. For kamíns I would either raise the task or lower the wage, and for the following reasons. They have no natural reluctance to work for a daily wage; it is generally their ordinary means of livelihood. (2) They are accustomed to an inferior class of food, will eat even in good seasons grain and natural products which a zamíndár will not look at till compelled to my hunger. (3) In

famine seasons there is generally great mortality among cattle, and some classes of the menials eat the corpses and make some money by selling the skins and bones.

I do not consider any system of selection practicable.

96. In Municipalities births and deaths are registered at the Municipal Offices. In rural areas the village chaukidárs keep registers of births and deaths, reporting the same at Police Thánas periodically.

97 and 98. The mortality was not unduly high.

99. The sanitary arrangements on works have been described above. They were satisfactory. Supervision was exercised by the Civil Officer in charge and by all officers visiting the works.

100. Shops on the works were regularly inspected. The quality of the grain in the shops was always excellent.

101. Impossible to say to what extent the people supplemented their food with wild products; at one time the effects of eating wild products was apparent from the increase of bowel complaints.

102. There was a good deal of immigration from Native States. The proportion was .3 per cent. of the number relieved.

103. There was no difference observable.

104. Orphans have been made over to relations, caste fellows and native institutions; none to Missionaries.

105. No suggestions to make.

106. No, on the contrary the people said that but for the railway the western portion of the district would have been deserted.

106 (a).—The Railway authorities submitted weekly returns of the movements of food-grains. Regarding river and road no information is available.

107. No; enquiries were made and replies were received, denying that any such difficulty had been experienced.

108. No.

109. Not understood. The zamíndárs still as a rule pay their kamíns in grain; otherwise cash wages are paid.

110. The provisions of the Famine Code have been strictly observed, except in so far as payment to dependants on test-works, but this too was given in very special cases.

111. No Yes. No.

112. Except for the purposes of the Indian Charitable Relief Fund no use was made of non-official agency. I do not think that at present in this district much reliance could be placed on non official agency.

In this connection of course I consider Zaildárs and Lambardárs as officials.

113. The works in this district were not on a sufficiently large scale to enable this to be answered; there were few changes, and these had little or no effect.

114. The vast majority of the workers lived in their own villages, consequently none of the evils referred to were noticeable among them. Regarding the residents in the camp no facts came to my notice which would show any tendency towards these evils.

RAI BAHÁDUR JANKI PARSHAD, EXTRA ASSISTANT COMMISSIONER,
KARNÁL.

The President.—Had you relief works in your subdivision?

A.—Three.

Q.—Any village relief?

A.—We gave *takávi* to nineteen villages for village tanks.

Q.—Did you distribute any doles?

A.—Yes, to 238 villages.

Mr. Nicholson.—There was no penal wage and nobody could earn less than the minimum wage?

A.—No.

Q.—Did people earn the minimum wage?

A.—Very few. They were doing their full task: mostly the minimum was earned by people unaccustomed to such tasks at first.

Q.—How did you punish people who did not do the full task?

A.—We fined them.

Q.—Did you dismiss them from the works at all?

A.—Only on account of continual contumacy.

Q.—There was considerable loss of cattle—was that due to their being sold or to their dying?

A.—Only 8,710 were sold and 79,528 died out of 240,577. The remainder were not left in the subdivision. They were taken to Dehra Dún.

Answers of Pandit Janki Pershad, Extra Assistant Commissioner Karnal, to questions drawn up by the Famine Commission, 1901.

INTRODUCTORY.

1. When the rains of 1899 commenced the outlook in the Kaithal Sub-Division was doubtful. The harvested crop in Kharif 1898 was below the average, i.e., 726,824 bighás, the normal harvest being about 10 lakh bighás.

2. The kharif sowings of 1899 in the Kaithal Sub-Division were 1,098,816 bighás. Out of this 887,960 bighás failed and 210,856 bighás only were harvested. Sowings of kharif of 1894, when 1,033,666 bighás were sown, is considered normal in this sub-division.

3. The average rainfall of the sub-division during the rainy season (from 1st June to 15th September) is 17.75, and during that of 1899 the actual rainfall was 7.8 representing 44.12 per centage of the average. The rain ceased on 24th July, though in September there was sprinkling rains now and then measuring about 50 cents. in all.

4. Being on leave I have no record with me to answer this question.

5. The percentage of the total population of this sub-division depending exclusively on agriculture is 63.2. The total population is 257,493, of which 163,790 are agriculturists and 93,703 non-agriculturists.

PRELIMINARY ACTION.

6. Yes; though the necessity of relief was assumed on the fact of crop failure, yet some works were begun as test works.

7. Physical condition, emigration of people from villages, increased number of beggars in towns were the facts observed by local officers, who at once visited village in the affected area, inspected the kind of food eaten, and were convinced that the machinery of relief should be set in motion.

8. At first test work of raising Karnal and Thánesar road was opened and 100 to 125 cubic feet was the task allotted to 1 digger and 2 carriers in ordinary soil and 150 cubic feet in soft soil. The wages paid were as follows:—

	Chitáke.
Diggers	18
Carriers	13
Working children above seven years of age	7

9 (a).—Lists of some relief works were ready in the District Office, and they had been actually located and surveyed, and estimates of costs had been made out beforehand. But these lists were not acted upon, and the standard plan of large tanks, for which localities in the affected area were easily found, was preferred to the works entered in the lists.

(b) Relief programme did not include scale of establishment, nor list of candidates for famine service was forthcoming in the District Office.

10. Though it contemplated large works as the backbone of the relief system, yet provision was also made for small village works.

11. In the sequence of relief measures test works took the first place. Subsequently these works were converted into relief works, when kitchens were opened on each of them for non-working children and other dependants.

No kitchen was opened elsewhere.

At or about the same time wealthy people contemplated starting cheap shops by raising subscriptions, but as prices never fell to the determined limit of sale of grain, the shops were not opened.

After some time branch of the Famine Charitable Relief Committee organized local charity and began its work about the middle of February.

People were allowed to use grass and leaves of trees from unleased Birs or Government Rakhs to feed their cattle with.

12. During the famine of 1896-97 the Kaithal Tahsil was divided into famine circles and the Zaildars were appointed as Circle Inspectors to arrange for relief in their circles. Lambardars and Safed poshes were required to report to the Circle Inspectors, who reported on to the Collector through proper channel. The same system was followed in the famine of 1899.

Stimulating local employment of labour was not possible.

Local charity was organized by the Local Committee of the Famine Charitable Relief Fund.

Besides receiving weekly reports from the Famine Circle Inspectors, officers were continually in camp with a view to observe general condition of people.

13. Loans were issued to the extent of Rs11,328 for digging village tanks in February 1900, and in the month following to the extent of Rs4,755 for purchasing fodder for the bullocks working on wells in certain tracts. These loans were recoverable in full, but subsequently the Indian Famine Charitable Relief Fund helped with Rs3,000, and this sum was let off out of the advances for fodder to those who were considered unable to repay the loans in full or in part.

14. Few wells only can be dug in some parts of the affected tracts of the sub-division, but I do not consider them of much avail. The average

depth of well above and below the surface of water is, I am told, as follows :—

Names of chaks.	Above the surface.	Below the surface.
	Feet.	Feet.
1. Bangar Kaithal	80	18
2. Nardak	80	20
3. Bangar Pehowa	60	15
4. Chhachia Jinubi	40	15
5. Powadh	35	15
6. Naili Kaithal	30	12
7. Naili Pehowa	30	12
8. Andarwar	30	15

On the cessation of rain in 1899 water in the wells situate in the affected tracts is said to have decreased by 4 to 5 feet.

Digging of wells was not encouraged by loans, nor sinking of wells could be of any use either as relief or for sowing rabi crops, especially as the scarcity of fodder and the prevalence of famine had destroyed the agricultural cattle to a considerable extent and made the surviving cattle quite unfit for work.

15. As already stated, the work first undertaken was raising of Kaithal and Thánesar road under the District Board, and after that excavation of a branch of the Sársuti Canal called Guhna Branch. These works were conducted under the supervision of the Deputy Commissioner, Karnál, the Sub-Divisional Officer, Kaithal, and the Tahsildár.

When tanks were opened at Dasírpur, Padla and Chhatar as test works, they were under the supervision of the Executive Engineer, Public Works Department, Umballa Division. These works were also inspected by the Deputy Commissioner and local officers.

16. The task exacted on the test works from one digger and two carriers was 100—125 cubic feet.

Women and working children were employed generally as carriers, two children below the age of 12 being counted as one carrier.

17. As far as I remember piece work was not introduced on test works.

Workers who wilfully neglected to complete their task were fined about one pice each. Workers were not allowed rest-day allowance or allowance to their dependants.

In exceptional cases some emaciated children were given one or two pice per day to save them from starvation.

LARGE PUBLIC WORKS.

18. As already stated, the large tanks, digging of which had already been commenced as test works, were on receipt of orders from the Commissioner declared relief works.

19. Please see answer to Question 15.

20. Under the supervision of the Executive Engineer, Public Works Department.

The works were already in progress as test works. The only delay of four or five days that occurred in opening the test work at Chhatar was due to the negligence of a Public Works Department subordinate.

Yes, the tools and plants were available.

21. Each tank was a charge providing for 5,000 workers for six months.

The maximum exceeded on the Padla, I should say in a fortnight. Steps to relieve the pressure were not considered necessary, as the Superintending Engineer remarked that he would wait until the number exceeded 8,000. Besides another site at a distance of a few miles from the work had been selected and surveyed for emergency.

29. Yes, each charge had its own establishment consisting of—

1 Sub-Overseer.

2 Work agents.

4 Mistris.

2 Clerks.

1 Muharrir for every 500 labourers.

3 Cashiers.

1 Store-keeper.

1 Superintendent of kitchen.

2 Muharrirs of kitchen.

1 Registration Muharrir of new-comers.

Before opening each work materials had been collected on the sites of works.

Pepole on coming to work and residing in camp made shelters themselves with the materials supplied to them.

Arrangements had been prescribed beforehand for conservancy, water-supply, medical convenience and supervision :—

(1) Limits were marked out for relieving nature beyond it, and sweepers out of the relief workers were nominated to keep the place clean.

(2) Nearest wells were rented for water-supply, cleansed, disinfected, and Hindu kahirs appointed out of relief workers to draw water from the wells and carry the same to the camp. Kerosine oil tins, iron vats and large brass vessels were used for carrying water on carts or on bahngis to camp, where it was distributed at several fixed places on each work.

(3) For food-supply shops of baniás and confectioners were opened in the camps. The shop-keepers were allowed one anna per rupee for the carriage of supplies and for their troubles. Thus there was no difficulty in procuring the shops.

The confectioners who came of their own accord were not allowed anything as compensation.

(4) Each work had a dispensary and a contagious disease hospital at an appropriate distance from the works, under a Hospital Assistant and a Dresser.

The Civil Surgeon of the Karnál District used to pay inspection visits frequently.

23. Yes, free to all, and no system of selection was tried at the commencement. No distance test was insisted upon, nor was residence in camps made compulsory.

24. I should say a work capable of entertaining two charges of 5,000 people is not suitable, though it may be possible. Such work can be managed if experienced establishment is found.

People of the Karnal District went for relief as far as 30 miles from their homes.

25. The Public Works Department Officers, though not subordinate to the Civil authorities, never worked independently in any matter.

Responsible officers of both the Departments used to meet of times and discuss arrangements before steps were taken in any important matter. Both Departments worked harmoniously.

26. Each charge was under a Civil Officer of a position of Náib Tahsildár or Girdawar Kánungo. The salary of the former was R60 plus R12 deputation allowance, and that of the latter R 50 per mensem. He had full authority over the local representatives of the Public Works Department, who were subordinate to him.

He assured himself that measurements were correctly and punctually made and that orders of Government were being followed in all matters.

27. Yes, it rested with the Civil Officer in charge to decide at the time, final decision being given by the Public Works Department Officer on his next visit.

28. Gangs of labourers were constituted according to caste, profession and residence, size of a gang being up to 60.

29. The classification of labourers was as follows :—

1. Special Class.
2. Diggers.
3. Carriers.
4. Working children.

Special class used to get 3 pies more per diem than diggers. Wages were calculated on 18 chitáks

grain for diggers, 13 chitáks for carriers and 8 chitáks for working children.

The only departure from wage scale was calculation of wages on wheat instead of on coarse grain, which in this sub-division was dearer than wheat.

30. I should say the distinction already drawn in classification and wages of men and women works admirably. It requires no amendment.

31. The Code task system was introduced from the outset. People preferred task system to that of piece work. A few professional diggers only were allowed and agreed to payment by result.

32. The system of payment by result is, in my opinion, unsuited to conditions of actual famine; people being weak and unaccustomed to relief labour cannot earn sufficient to keep them fit for working.

33. Task was exacted from 100 to 125 cubic feet from 1 digger and 7 carriers according to the quality of soil and distance of lead.

Full task was demanded from all. Those who were coming from a distance within three miles of work and not residing in camp were required to do 15 per cent. more work than others. The latter system was adopted in March 1900. No complaint of hard-ship came to my notice.

34. The scale of wage adopted was, as far as my experience goes, adequate, especially so when the children and dependants of the workers were being fed in the kitchen.

The condition of the workers much improved after the kitchen was opened.

The workers might have saved a little from their earnings when wild fruits and vegetables were procurable, but I have no evidence in support of this presumption.

Chamárs and Chuhrás also may have saved something, as they are accustomed to feed themselves on dead bodies of animals. This leads me to believe that in the case of Chamárs and Chuhrás the wage was somewhat liberal.

The return of copper coin to the baniás in camp was not much, as most of the workers residents of villages situate within a radius of 5 miles used to live in their homes, and also many in nearest villages where shelter could be got.

35. When test works were in progress and no rest-day wage was given people generally complained of it and begged to be allowed to work on Sundays. When the works were converted into relief works a rest-day wage was given.

By doing task work people could not save sufficient to provide themselves on rest days.

I prefer task system and payment of rest-day wage.

36. In my opinion the minimum wage is no too high.

Fining for short work should of course be continued down to minimum wage.

37. The minimum wage was the penal wage or works in this sub-division. There were as far as I recollect very few cases of continued contumacy and an example was made by excluding such person or persons from work for three or four days. Generally speaking, the people worked cheerfully and did not give trouble.

Continued contumacy was due to laziness of some persons and to the fact that the whole gang to which the defaulter belonged was considered responsible for doing full task given to it.

38. At first payment was made twice a week and then daily at the earnest request of the workers.

My experience leads me to think that daily payments are desirable and practicable.

39. The new-comers used to be paid daily as the *baniás* were unable to keep accounts of credit.

40. Payment was made to the individual, and I prefer this method.

41. I am sorry I cannot answer this question.

42. There was no general system of payment by result.

43. The maximum wage was—

R 0-1-9 per digger.

R 0-1-3 per carrier.

R 0-0-9 per working child above seven years of age and fit for work.

Before opening kitchens one or two pice per diem used to be paid to some non-working children though parents tried to enlist them as working children. Strict supervision, however, frustrated their endeavours.

Weakly persons capable of some work were given light labour until they regained their strength and became fit to do full task.

Persons not capable of doing any labour were either sent to camp hospital or fed in the kitchen until they became capable of doing light labour.

44. Contractors were only employed by Public Works Department for supplying hutting material, baskets, etc.

45. Payment by result system was not introduced in this sub-division.

46. Under the orders of the Collector. Calculation was based first on wheat and barley mixed and subsequently on wheat and gram mixed. Fraction of a pice was neglected.

47. Every step in connection with the opening of relief works was taken by the Deputy Commissioner himself, and he must have answered this question *in extenso*.

48. The tasks were stiffened or relaxed by the Public Works Department. The Collector only made suggestions to the Department.

As far as I know the wages were fixed by the Commissioner. I do not know whether the Commissioner used to issue orders independently or referred the question to higher authorities.

51. No.

SMALL VILLAGE WORKS.

52. No small village works were opened in this sub-division for relief. Certain villages were, however, given takávis to enable their poor residents to dig out their tanks. The chief residents of such villages were Rájpúts, who observe parda system.

Land-holders were held responsible for repaying the advances.

53. Digging village tanks.

54 and 55. The work was conducted through land-holders without any supervision. One quarter of the amount of takávi was advanced to commence the work with. Before paying another quarter of the takávi the Civil Sub-Divisional Officer satisfied himself that sufficient work for the amount advanced had been executed, and so on.

The earthwork was measured by Patwári under the supervision of the Sub-Divisional Officer, Kaithal, and calculated on the cost per thousand cubic feet on the nearest big relief work.

56 and 57. Require no answer.

58. These small works did not draw labourers from other work, as the villages which had received takávis would not allow people from other villages to work with them.

59. Such small works seem desirable in some villages whose residents would not resort to big relief works on account of parda system or caste prejudice.

SPECIAL RELIEF.

60 to 67. There was no special-relief work in this sub-division.

GRATUITOUS RELIEF.

68. Until the opening of kitchen on large relief works dependants were relieved by payment of cash allowance. This method of relief was cheaper, but giving cooked food in kitchens proved most satisfactory, as the health and condition of the dependants fed in kitchens improved very much.

Nursing mothers were paid one pice more than other women. On small village works no dependants were relieved.

69. The only recognized form of gratuitous relief employed in this sub-division was distribution of cash allowances through the Inspectors of the famine circles.

70. No, it did not go beyond the classes mentioned in paragraph 141 of the Report of the Famine Commission of 1880.

The Circle Inspectors selected persons deserving relief and submitted lists which were carefully checked by Civil Officers on tour. Sanctioned lists were also checked as frequently as possible.

71 to 73. No poor-house was opened in this sub-division.

74. As already stated, kitchens were opened on relief works only in which the dependants of workers only were admitted. They numbered three in all.

After the rains broke and the relief works were discontinued the kitchen of the Dasirpur Relief Work was kept open for a week or so for the support of the children of villages within a radius of three miles.

75. Dál and chapátís were given twice a day, and khichri (rice and dál) once a week. Milk and rice was given to emaciated children.

Food was distributed at a fixed hour in the morning and evening.

The fixed time occasionally altered according to season.

People willingly took food on the premises and no one was allowed to take food away.

76. There were no circle kitchens in this sub-division.

77. Admission to kitchen was restricted to dependants of the people on relief work concerned.

74 (a). There was no poor-house as already stated.

75 (a). Circle Inspectors, as already stated, drew up the village gratuitous relief lists, which were checked by Revenue officials after inspecting the selected recipients. The Deputy Commissioner, Sub-Divisional Officer, Kaithal, Tahsildár and Náib Tahsildárs, who were constantly on tour, used to check the lists as often as they visited the villages.

76 (a).—(a) Payment was made in cash; (b) weekly; (c) at the homes of the recipients.

77 (a).—To none.

78. Brahmans were employed for cooking food. No reluctance to take cooked food was shown by any class at any stage.

79. Hindu superintendents were appointed by the Public Works Department in each kitchen under the control of the Civil Officer in charge. Officers on inspection tour used to check the quality of supplies in godown and the cooked food. Distribution of food was also watched by them when present.

Relief works were always visited by inspecting officers without giving previous notice.

No complaint was ever made to any officer against insufficiency or bad quality of food.

80. None were opened in this sub-division.

81. Requires no answer.

82 to 86.—The Deputy Commissioner only is in a position to answer these questions.

GENERAL.

87. Being on leave I am not in a position to answer this question.

88. I do not consider that relief at any particular period was excessive or defective.

People in general always eulogised the arrangements made by Government for relief and expressed heart-felt gratitude towards it.

98. People in receipt of relief were of all classes. I mean zamíndárs, occupancy and other tenants, village menials, etc., etc.

People from Bikáner, Patíála and Jínd were also on the works. Menials figured more than zamíndárs by $\frac{1}{6}$ th or $\frac{1}{7}$ th.

90. I have no experience of former famines.

91. As far as I know people had exhausted their resources before seeking and accepting State relief.

Most of the zamíndárs, Hindús included, sold their cattle to butchers, and even refused to let the Chamárs have the hides of their dead cattle as customary, with a view to sell them for their own benefit.

In fact the zamíndárs had very little or no grain store with them because of continued bad harvests since 1895 except probably one or two harvests. They were already indebted to baniás, who would not give them credit any more.

92. I should say so.

93. In my opinion system of selection is neither necessary nor practicable.

93. In Municipal towns births and deaths are registered at the Municipal Office.

In rural areas the Village Chaukídárs keep registers of births and deaths and report the same periodically to the Police Station of the iláka.

95. Mortality was very little during famine.

96. Requires no answer.

97. As already stated, kitchens were open on large relief works only, and there was no poor-house in this sub-division.

Wells for obtaining water for the works were disinfectd before their use under the supervision of the Civil Surgeon. Hindu kahárs were appointed to draw water from the wells. The wells were enclosed with a thick thorn fencing, and a mate was stationed at the entrance, who allowed no one to enter except the kahárs.

At a distance of about 300 paces yellow conservancy flags were placed, beyond which people were directed to go to answer call of nature

Sweepers were selected from among the labourers for conservancy purposes and put under a mate.

The sweepers in addition to cleaning the camp ground used to bury daily refuse in pits dug for the purpose. Two or three sweepers were placed at the disposal of the Hospital Assistant in charge of dispensary and contagion hospital.

These arrangements were rigidly supervised by the Civil Officers in charge, and the Inspecting Officers always found them satisfactory.

98. Shops on the works were regularly inspected. Supplies brought by the baniás for sale in the camp shops were not allowed to be stored until inspected

by the Civil Officer in charge and the Camp Hospital Assistant and passed.

On every inspection the quality of supplies was found good.

Wild products were not procurable until a month before the closure of the works, and they of course had no bad effect on the health of the people, they being accustomed to their use.

100. The proportion of immigrants from Native States was about 23 per cent. to the number on works.

101. Observed no difference.

102. Orphans were made over to their relations and friends. None to my knowledge was made over to Missionaries.

103. I have no suggestion to make.

104. There was no complaint against. The local price of food was not raised through any defect in railway carriage.

104 (a). Am not in a position to answer this question.

105. None.

106. No.

107. Zamindárs as a rule pay their menials in grain.

108. Being on leave I am not in a position to answer this question.

109. Staff Corps Officers were not employed on supervision. Certain Non-Commissioned Officers and men of British Army were employed in minor posts.

Cannot suggest any other source from which supervising officers can be drawn.

120. Non-official agency was not made use of.

111. Cannot answer.

112. None of the evils referred to in the question came to my notice.

LIEUTENANT-COLONEL C. J. BAMBER, SANITARY COMMISSIONER, PANJAB.

Mr. Bourdillon.—How long have you had the appointment?

A.—Since 1898.

Q.—Have you a Deputy Sanitary Commissioner?

A.—Only one for the Province, and his time is taken up with plague now and has been over since plague broke out.

Q.—So you work direct with Civil Surgeons. We have been supplied with statistics up to November. They do not show an extraordinary rise in mortality?

A.—Cholera began early in December—that is extraordinary because our usual cholera time is April, May and June. When the rains began we also had very extraordinary fever mortality. It carried off people of all classes.

Q.—What are the figures for the remaining months of the year?

A.—I have not worked it out per mille. I can only give actual deaths. The mortality was very high from malarial fever all over the province—rather higher in the other districts than in the famine districts. Births are now very low because of the effects of famine and also because large numbers went away from Hissár and Rohtak in the famine, and on going through the villages lately I find about 4 per cent. still absent.

Q.—Can you give any general suggestions?

A.—I think when a camp is half full another should be started. A camp of 1,000 is as much as there should be with a *naib tahsildár* in charge. It will of course cost a good deal.

Q.—Rather a counsel of perfection. What were your arrangements for keeping the Deputy Commissioner acquainted with the rise or fall in mortality?

A.—Reports go to him from the Civil Surgeons, and the Civil Surgeons send them on to me. He really knows them before I do.

The President.—What did you observe of the physique of the people?

A.—They were wonderfully well sustained. They have recovered from the famine. I find very few children, especially, who are now in bad condition.

Q.—Do people require more food in the cold weather?

A.—Yes, but by modifying the food the same rate would do for both hot and cold weather. In the cold I would add more fat or oil. I should also like to gauge the condition of the people at different times. Their weights could be easily taken in poorhouses, but on big works, a few would have to be selected and weighed.

Q.—But if out of 30 people 15 showed a decrease of weight and 15 an increase, what would you do?

A.—Nothing.

Q.—And if 20 increased and 10 decreased, would you alter your scale?

A.—No.

Q.—Was the reduced wage adequate?

A.—Yes.

[*Witness subsequently submitted the following statistics by telegram.*]

Total deaths in October, November and December 1900 :—Hissár—10,877 ; 10,238 ; 5,925, respectively ; Rohtak—4,845 ; 6,148 ; 2,569 ; Gurgaon—4,639 ; 4,417 ; 2,877 ; Delhi—4,913 ; 6,011 ; 3,554 ; Karnal—15,173 ; 10,544 ; 6,810.

Answers by Lieutenant-Colonel C. J. Bamber, I.M.S., Sanitary Commissioner, Punjab, to the questions drawn up by the Indian Famine Commission, 1901.

96. In the rural circles of the Punjab, births and deaths are reported by chowkidárs, who are supplied with two books, one for births and the other for deaths, in which entries are, on the chowkidár's report, made by any resident of the village who can read and write; the lambardárs of the village, who are held responsible for the accuracy of the entries, affix their seals or signatures in token of having verified them. The chowkidárs take these books to the thána at their weekly visits, and from these books and from oral queries from chowkidárs, the Police Moharrir of the thána compiles his registers.

The Police Moharrir signs the chowkidárs' registers of births and deaths in token of having seen them. If no fresh entry is registered week after week, or when there are markedly fewer entries in the registers than in those of other villages of the same size in the thána, the Police Moharrir is required to inform the officer in charge of the thána. Steps are then taken to enquire whether the chowkidár has been neglecting to register births and deaths; and if so, his neglect is brought to the notice of the Deputy Commissioner. The chowkidár's registers are inspected by Vaccinators, Native Supervisors of Vaccination, Tahsildars, Naib-Tahsildars, Divisional Inspectors of Vaccination and of Registration of Births and Deaths, Civil Surgeons, Deputy Sanitary Commissioner and the Sanitary Commissioner.

The Police Moharrir of the thána submits his returns weekly to the District Superintendent of Police, who forwards them to the Civil Surgeon. The Civil Surgeon forwards weekly and monthly returns, compiled from the thána registers, to the Sanitary Commissioner, from which the provincial monthly returns are prepared and published in the *Punjab Government Gazette*.

In the municipal towns of the Punjab, birth and death registers are kept at Municipal Registry Offices and weekly returns are submitted to the Civil Surgeon, who forwards weekly and monthly returns compiled from the Municipal registers to the Sanitary Commissioner for publication in the *Punjab Government Gazette*.

In many municipal towns the registration of births and deaths is enforced under Municipal Byc-laws.

97. Please see paragraphs 16, 31, 39 of my Sanitary Report on the Famine for 1899-1900, a printed copy of which is herewith enclosed.

98. Please see paragraph 4 regarding water-supply and bottom of page 4 of the same report.

99. Please see paragraphs 4, 5, 6 and 8 of the same report.

100. Please see paragraph 7 of the same report.

The points on which I have to remark are the arrangements made to relieve the people and the result of the famine on the health of the people, as shown by the returns of vital statistics.

The Sanitary Commissioner is directed in the Famine Code of this Province to consider himself especially in charge of relief measures in their sanitary aspect. In accordance with this, during the years 1899 and 1900, I inspected from time to time famine relief camps in the different affected districts, and submitted reports regarding their sanitary condition. I propose to note, from what I saw during these inspections, the points which I consider require to be observed in future famines. I shall then go on to discuss the figures given in my returns of the mortality that has taken place in consequence of and during the famine.

I have attached to this report three statements,—one giving the deaths from different diseases in the worst affected districts, *viz.*, Hissar, Rohtak and Gurgaon, a second giving the deaths according to age-periods with three abstracts, and a third giving the births.

When scarcity occurs the people have to be provided with food; in order not to pauperise them, the able-bodied are provided with work, and paid for doing it. When the work is near their homes, they come from them daily to the work. When the work is at a distance, shelter has to be provided for them and their dependants.

2. It is better for the people to be collected in camps and huddled than allowed to live scattered about under bushes and trees. In the latter case it is impossible to know their condition, and in case of epidemic disease breaking out, it can spread before measures can be taken for stamping it out.

A mistake that was made in several cases was to open a relief work before materials for hutting had been collected or the site for a camp had been properly laid out.

In some cases the camps were most irregular, the shelters scattered for some distance by the sides of roads that were being made, or else scattered about among bushes and under trees. It is impossible in these cases to keep the surroundings in a sanitary condition, or to protect from contamination the different wells that may be used by the people.

Although directions for laying out relief camps have been laid down in the Famine Code, no regular

sketch plan has been drawn out, and the directions were not understood.

Later in the famine, a regular plan for camps was introduced, and was most excellent. Two broad streets crossed each other in the centre of the camp, dividing it into four equal parts—one part for Hindús, one for Muhammadans, one for Chamars and one for Sweepers: one main street 50 feet broad; one cross street also 50 feet broad; side streets separating each line of huts 25 feet broad; an open space on each side of every hut in its line 12 feet 6 inches broad; a space in which each hut is placed 25 feet in length by 12 feet 6 inches in width. The lines of huts could be increased outwards when the camp had to be enlarged.

For administrative purposes it is better not to allow a camp to hold more than a 1,000 people. As the numbers increase, other camps must be laid out at a distance of two or three hundred yards from each other.

The people are much more easily managed in well laid out camps. The gangsmen can look after their people better. The camp can be kept clean much more easily.

A rough plan of a camp is attached to give an idea of the sort of thing that is required.

3. At first the people were supplied with mats or grass screens and told to arrange shelters for themselves; these were put up in all sorts of ways and were very little good. In Shahpur from the first the workers on the Jhelum Canal were well huddled in shelters with good walls and roofs.

Afterwards in most of the camps in Hissar and elsewhere good shelters were provided. These should be constructed for the people.

The best kind of shelter appeared to be one consisting of two jumps leaning against each other and fastened together at the top. The jumps were made of several layers of grass sirkis fastened together with strips of bamboo. When the camps had to be moved, these jumps folded together and could be easily carried. They were strong and wore well.

In some camps the earth was dug out under the shelters for a depth of two feet or more. In this way the people could stand up in them. The drawback to this was the chance of rain finding its way in, and in places where the ground water is not far from the surface, dampness.

The jumps were about 9 feet long and 7 feet broad. These roof-shelters can be kept made up and given out as required.

4. In the Famine Code orders are given to protect water-supplies, but as directions are not given how this is to be done, I found at first that in many cases the water-supplies were liable to contamination.

If possible, the drinking water should be obtained from wells. If there is no well close to the relief camp, water has to be brought from a distance, at considerable expense; it will often be found cheaper when the camp has to be occupied for many months to sink a well near the camp.

In this famine deepening and enlarging existing tanks was frequently the work given to the relief workers.

Wells sunk near these tanks give an abundant supply of sweet water. When an existing sweet water well is to be used, it should be first disinfected with four ounces of permanganate of potash. If the water is not in constant use, it should be pumped out and the well cleaned.

A small tank should be constructed close to the well and the water should flow directly into this. This tank should be fitted with four to six taps or pipes with wooden spigots, so that there is no necessity to dip vessels into the tank to draw water. The tank and well should have securely fastened covers. The workers, while at work, should be supplied with water: iron tanks or large barrels with taps should be placed at regular distances round the work. Each barrel should be under a little shed, and men of good caste should be appointed to give out the water either into the workers' mouths by means of a small tin vessel with a spout or into drinking vessels.

In each camp there should be iron tanks, with taps to supply the people in the morning and evening.

It is better to have a tank in each section of the camp, as the people will go long distances to other sources of supply if they find that different castes have to take their water from the same tank.

The water should be brought in iron vessels or barrels in carts or on camels and poured into the distributing tanks. No cattle troughs should be allowed, as the people often fill their vessels from these, dipping cholera-contaminated cups into them. In the Hissar and Delhi districts this was probably the cause of outbreaks of cholera in some of the relief camps.

Wells should be supplied with Persian wheels, or if a rope and bucket has to be used, the latter must be of iron, when Hindús of good caste have to drink the water. For bathing purposes, screened-off places should be made and so arranged that the water drains away from the direction of the well.

Platforms should also be made where clothes can be washed, the same precautions being taken as to drainage.

5. There should be several gangs of sweepers; to each gang should be allotted a section of the camp and that part of the area of the work on which that section works.

Scavenging.

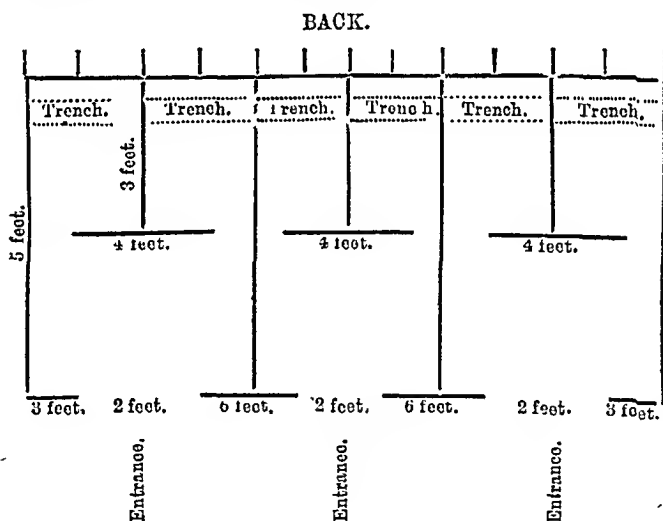
There should be another gang to keep the ground round the camp and work clean. The gang in charge of the latrines should be quite separate.

There should be an official in charge of all these gangs. He should be a retired Daffadár or Havildár.

6. At first in several camps the use of latrines was not insisted upon, and the result was, the surroundings of some camps were unspeakably filthy, although sweepers were directed to go about removing filth. The use of latrines must be insisted upon, and in well managed camps, where the officials are capable men, there was very marked difference in the condition of the surroundings of their camps. If there is a Sanitary Daffadár who looks after his work and is backed up by the Tahsildár in charge, there is no difficulty in enforcing the use of latrines.

The latrines should consist of screened trenches. The trenches should not be more than 12 inches deep and 12 inches wide. There should be one long screen of matting or grass at the back of the trench, made like a hurdle, with pointed ends at intervals to stick into the ground.

The front of the trench should be screened and divided into compartments by arranging small and long screens 6 feet high alternately; when looked at from above, they look like a number of Capital T's, a small one and a big one alternately standing on a line. This diagram shows the position of the screens forming a moveable male latrine :—



The latrine for females should be a long screened enclosure, without partitions, as women of this country will not use separate compartments. The latrines must be kept sweet with earth, as people naturally object to use a foul latrine. For this reason a sweeper must be constantly present to throw dry earth into the trench each time. It is impossible for one sweeper to be always on duty; two should be attached to each latrine, one being present for two hours and then being relieved by the other for two hours.

In some camps the latrines were kept on one spot for a considerable time. This is a mistake, as the ground becomes fouled, although the filth is constantly being removed. It is better to keep moving the latrines, digging new trenches, moving the screens and filling up the old trenches. The new trenches should be dug in the direction of the camp, so that the people will not have to cross the old filled up trenches in going to the latrines. The latrines should not come within 200 yards of the camp. A small night latrine should be placed within 50 yards of the camp. This should be closed in the day by a bundle of thorn bushes thrust into the entrances.

The latrine accommodation in the day should amount to 10 seats per hundred persons, and that at night to 1 per cent.

7. Latterly, very good arrangements were made in relief camps to enable the Food stuffs. workers to obtain their food cheaply and easily. A certain part of the camp near the administrative quarters was turned into a bazár, and here baniás set up shops. In the best managed camps there was a notice board with the price current posted up on it. In some places, where large villages were near, the baniás complained that a great many of the workers went elsewhere for supplies and did not patronise the camp shops. As a rule, the food stuffs supplied were of very fair quality.

It is laid down in the Famine Code that the Sanitary Commissioner should take measures for testing the adequacy of the ration, but it was found that the only way to do this would be to weigh the workers. This was considered impossible, as the officials in charge of the relief camps had already quite as much as they could do.

8. The poor-houses were laid out in accordance with the plan given in the Poor-houses. Famine Code, and seemed to answer the purpose very well. They were generally well managed, and the sanitary rules laid down in Appendix E of the Famine Code appeared to be closely followed. The sick rate and mortality were high, but this was only to be expected, as the weak, old and sickly were collected in these places.

The inmates appeared to be comfortable, and very few complaints were made.

The chief danger in these places is overcrowding.

9. The diseases of an epidemic kind that broke out during the famine were Epidemics. fevers of different kinds, measles, small-pox and cholera.

The mortality in relief camps was not excessive, but in poor-houses and in towns and villages it has been very great. As the returns from relief camps and poor-houses are forwarded to the Inspector-General of Civil Hospitals, the mortality in them is not discussed in this report.

Fever has been very prevalent all over the

famine-affected areas. Attempts have been made to differentiate between the different varieties of fever. It was to be expected that so-called famine relapsing or spirillum fever would be found prevalent—a fever, bearing these names, which has constantly been found to occur in this and European countries during times of great scarcity.

However, although Civil Surgeons were asked to search in the blood of fever patients for the spirillum which is the cause of the disease, no one was successful in doing so.

The writer proceeded to the districts where fever was said to be most prevalent to try and procure specimens of blood from patients suffering from continued fever. There was some difficulty in doing so, but a few specimens were obtained, and these showed that enteric and Malta fever did prevail in the famine-affected districts. This investigation has been fully described elsewhere.

One has reason to think that it is not malarial fever alone that has caused the high mortality during the time of scarcity as the deaths were most numerous in the spring and early summer, a time when malarial fever is least prevalent.

Measles occurred in some camps, but was not a cause of any great mortality. It was stated, however, that measles was the cause of much mortality in the villages in Hissar, but it is impossible to prove this from our returns, as deaths from measles are returned among other causes, and are often wrongly returned as fever and small-pox.

Small-pox broke out in some camps, but was stamped out by vaccination and re-vaccination.

Cholera broke out at an unusual time in the winter, in several camps, in Hissar, Shahpur and Rohtak. This disease always occurs in times of scarcity, when the water-supply is deficient and the people are too debilitated from want of food to fight against it; their digestive organs also are in a condition to take the disease, being disordered from the consumption of unsuitable articles of food taken in large quantities to stay the pangs of hunger.

The disease was introduced into Hissar by people who returned from the North-West Provinces when relief camps were opened in their own district.

It was taken by them into the Shahpur District, and later on in the early summer it spread all over the Province. It was stamped out in one place to break out in another and again carried back. The usual means for stamping out the disease were employed. Water-supplies not properly guarded were disinfected and greater care taken to protect them. Disinfection of the water-supply without proper means for protection was followed by re-infection.

Protection by human agency was found defective. At one camp it was found that the people came to the well at night; it being then unguarded,

dropped their own vessels into the well and drew water. Rules to be carried out in case of cholera breaking out in a relief camp are given in Appendix C of the Famine Code, and need no further remark here.

10. The statements appended to this report are marked A, B and C. Statement A shows the number of deaths registered from cholera, small-pox, fevers and dysentery and diarrhoea, month by month, in the famine years 1899-1900 and 1896-97, as compared with the figures for the previous five years 1891-1895, in the districts of Hissar, Rohtak and Gurgaon, in which, particularly in the first two districts, the famine was very severe, being most severe in Hissar. Statement B shows the number of deaths by sexes classified according to different age-periods, with three abstract returns, and Statement C gives the number of births recorded in these three districts for the same period.

I have given in these returns only the actual number of births and deaths, and purposely omitted ratios per 1,000 of population, as the rates for all the years from 1891 up to 1900 in our monthly and annual returns have been calculated on the population according to the census taken in 1891, and therefore do not afford a correct standard for comparison, as in ordinary years the population will have increased by the excess of births over deaths, and in famine years the population will have decreased by emigration to other districts.

HISSAR.

11. It will be seen on reference to Statement A that an unusually high mortality was registered in this district under the head of fevers during the nine months, January to September, of 1900. In January the number of deaths reported from fevers was 2,039. In February there was a decrease of 351 deaths, but in the following months of March and April there was a rapid increase, the number having risen to 2,660 in March and 4,221 in April. In May there was again a fall, the mortality having decreased to 3,661, though the deaths were more than double the number returned in the month of February. During the months of May, June and July the fever mortality was stationary, the number ranging between 3,613 and 3,745. In August there was a falling-off in the fever mortality of 596 deaths as compared with July, but in September the deaths rose from 3,017 in the preceding month to the high figure of 4,568.

12. Compared with the average mortality from fevers registered in the corresponding months of the years 1891 to 1895, the excess in January 1900 amounted to 820 and in February to 580. In March the number of fever deaths was 1,377 above the average, and in April it was as high as 2,878. In May the increase was 1,983. In June

and July the excess was very nearly equal, being 2,218 and 2,358, in August the fever mortality exceeded by 1,795, and in September the increase amounted to 3,132. The increase in September was directly due to malaria, as is shown by the increased mortality all over the Province.

I have only commented in this report upon the figures from the month of January, as the marked excess in the deaths began in that month.

Thus we see that in the first eight months of Total increase in January to August, 1900, there was a total increase of 14,009 fever deaths over the average mortality registered in the corresponding months of 1891 to 1895.

13. This excessive rise in the fever mortality in the first half of the year is contrary to all past experience. In the district of Hissar, as indeed in all other parts of the Province, the great increase in fever mortality, as an invariable rule, takes place in the autumn months, August to November. An examination of the figures given in Statement A for the Hissar District shows that the largest number of deaths from fevers was reported in the months of October and November of the unhealthy years 1892 and 1897, and in both these years the increase was caused by the prevalence of malarial fevers, the result of abnormal rainfall. In Hissar the average rainfall during the third quarter of 1892 was 25 inches against an average of 11.8 registered during the corresponding quarter of the previous seven years, and in 1897 the rainfall of the third quarter was 20.4 inches against only 10.5.

14. The mortality from fevers in January 1896 was exceptionally high throughout the Punjab, and Dr. Roe, in the Annual Sanitary Report of the Province, stated that "from personal experience of the Punjab he felt satisfied that the majority of deaths reported in January, as due to fevers, were really caused by pneumonia and chest diseases." To the writer it appears that the cause was influenza.

With the exception of January 1896, there is no instance in which the monthly fever mortality in any year previous to 1900 showed such an unusual rise in the first eight months as that noticed in 1900. Even the highest mortality registered in the unhealthy years of 1892 and 1897 was considerably below the number registered in 1900. In 1892 the highest number, viz., 2,209, was recorded in May, and it was 1,452 less than the number registered in the corresponding month of 1900.

The highest monthly fever mortality in the famine year of 1897 during the first eight months was registered in August, and it was only two-thirds of the deaths registered in August this year.

15. From the figures given in the preceding paragraphs I can safely conclude that the abnormally heavy mortality registered

High mortality due to some fatal type of fever other than malarial fevers.

under the head of fevers in 1900 was due to the prevalence of some fatal types of fever, other than malarial fevers, aggravated by the debilitating effects of want of food. In August I found that enteric and Malta fevers were prevalent in Hissar and Rohtak. It is most probable that these fevers occurred in the preceding months.

16. The mortality due to dysentery and Deaths from dysentery and diarrhoea. diarrhoea in the Hissar District in the eight months of 1900 was 1,974 against 279, the average number registered in the corresponding months of the years 1891 to 1895; the largest number, 380, took place in April, and was fourteen times higher than the normal mortality of that month. These figures will give an idea of the abnormal rate of mortality caused by dysentery and diarrhoea during the time that the famine was most severe in the Hissar District. This has always occurred in former famines. It is caused to a certain extent by the consumption of undigested things in large quantities to try and make up for the ordinary food stuffs.

17. With regard to cholera, the worst year in Deaths from cholera. the series was 1892; in that year the epidemic followed the regular course. The disease broke out in the Hissar District in April, attained its maximum intensity in May and June, and, as it always happens in this Province, the winter months enjoyed a complete immunity from the disease.

In the famine years 1899 and 1900 the case was different. The disease made its appearance in the cold month of December 1899 in one of the famine relief camps, causing 303 deaths. In the following month of January the mortality declined to 89. In February the district was again free from the disease, only two deaths having been reported; but in March cholera re-appeared with greater virulence and reached its maximum in April. In this month the number of deaths registered from cholera was no less than 1,735, as against only 188 reported in the corresponding month of the great cholera epidemic year of 1892. These figures show beyond doubt that much of the severity of cholera in 1900 was due to famine.

18. The mortality caused by small-pox in 1900 Deaths from small-pox. was not unusual, and calls for no special remarks. Altogether 1,246 deaths were reported to have occurred in the eight months of 1900, of which 243 took place in April, 401 in May, and 232 in June.

Unusually large numbers of people were vaccinated, and wherever the disease broke out it was at once stamped out in this way, there being no difficulty in vaccinating the people who were collected in famine relief camps.

19. Statement B shows, according to different Age returns. age-periods, the deaths registered from "all causes," as separate information for "fevers" is not available from our returns. The table is necessarily a large

one, but the details I have given will prove useful in connection with the district famine reports, as they show month by month by sexes, in each of the three districts, the periods of life in which the mortality was excessive. With this table I give three abstract returns, one for each district, in which the mortality registered from all causes under different age-periods during the first eight months of the year 1900 is contrasted with the average mortality of the corresponding months of the years 1891—1895

20. It appears from the statement of the Hissar District that during the first eight months of the present famine year 1900 the total deaths from all causes were 42,309 against 15,137 for the same period in 1891—1895, that is, about three times greater than the average. Of the 42,309 deaths, 22,905 were males and 19,404 females as compared with 8,210 males and 6,927 females in the five-year period. The proportion of male to every 100 female deaths was 118·0 in 1900 against 118·5 in 1891—1895, so that the difference was very slight, being only ·5.

21. I give in the subjoined table, by sexes, the total mortality from all causes for the eight months, January to August 1900, for each age-period, the average for the corresponding period in 1891—1895, the number of times the mortality was higher than the average of the five years, and the percentages of the mortality under each age-period to total deaths in 1900 as compared with the percentages in 1891—1895 :—

AGE-PERIODS.	DEATHS FROM ALL CAUSES FROM JANUARY TO AUGUST 1900.		DEATHS IN THE CORRESPONDING MONTHS OF 1891—1895.		NUMBER OF TIMES MORTALITY IN 1900 WAS HIGHER THAN THE AVERAGE.		PERCENTAGE OF DEATHS IN EACH AGE-PERIOD TO TOTAL DEATHS IN JANUARY TO AUGUST 1900.		PERCENTAGE OF DEATHS IN EACH AGE-PERIOD TO TOTAL DEATHS FOR THE SAME PERIOD IN 1891—1895.	
	Males.	Females	Males.	Females	Males.	Females.	Males.	Females.	Males.	Females.
Under 1 year .	3,133	2,581	1,944	1,563	·6	·6	14	13	24	23
1—5 .	4,495	4,057	1,644	1,454	2·7	2·7	20	21	20	21
5—10 .	1,941	1,722	519	416	3·7	4·1	8	8	6	6
10—15 .	1,175	941	301	242	3·9	3·8	5	5	4	3
15—20 .	799	726	220	172	3·6	4·2	3	4	3	3
20—30 .	1,580	1,457	567	506	2·7	2·8	7	8	7	7
30—40 .	1,587	1,516	502	489	3·1	3·1	7	8	6	7
40—50 .	1,850	1,419	549	459	3·3	3·0	8	7	7	7
50—60 .	1,906	1,387	617	442	3·0	3·1	9	7	7	6
Over 60 .	4,439	3,648	1,349	1,184	3·2	3·0	19	19	16	17
All ages .	22,905	19,404	8,210	6,927	2·7	2·8	100	100	100	100

It will be seen on reference to this table that in many of the age-periods the excess was pretty much the same for each period. Looking at the figures month by month, it appears that the increase was enormous between the ages of 5 to 20 years in April 1900. Under the head 5—10 years there were 409 male and 401 female deaths against only 55 and 49, respectively, in the corresponding month in 1891—1895, under 10—15 years 287 male and 234 female deaths against 32 and 24, and under 15—20 years the numbers were 228 and 227 against 24 and 17. This extraordinary excess was probably due to the large number of deaths which took place from cholera in the month of April (*vide* Statement B), in which there were no less than 1,735 deaths, the largest monthly mortality registered in the first eight months of 1900. My reason for considering cholera to be the cause is that in other months when the fever death-rate was high the excess was not so great. Our returns do not give the causes of deaths under different age-periods, so that I can only judge by inference.

22. Of the total deaths from all causes in January to August of the present year, 14 per cent. took place among infants under one year, 20 per cent. among children between 1 and 5, and 19 per cent. among old people of the age of 60 and upwards,—a total of 53 per cent., or a little more than half the total mortality.

23. On comparing the percentages of mortality under each age-period to total deaths in the eight months of 1900 with the corresponding percentages in 1891—1895, it will appear at a glance that the most noticeable point is the proportionately fewer number (14 per cent.) of infants under one year who died in the present year as compared with 24 per cent. in 1891—1895. The probable reason is that as fewer births were registered in 1900, so there were fewer deaths of infants under one year. For instance, the number of births in July of this year was 1,446 against 2,624 in the corresponding month of the years 1891—1895, or about one-half. And the probable result of this small number of births was that in July 1900, out of 6,470 total deaths, only 590, or 9 per cent., were those of infants under one year. In January 1900, on the other hand, the number of births (2,319) was almost as large as the average number (2,529) registered in the same month of 1891—1895, and in this month the proportion of infant mortality to total deaths was very high, *viz.*, 652 in 3,185 total deaths, or 20 per cent. The cold of the winter months may be another reason of the higher mortality among infants.

24. A comparison of number of the births registered, month by month, in the Hissar District during the eight months of 1900, with the average of the corresponding months of the years 1891—1895, as given in Statement C, shows that in ordinary years of 1891—1895, as is the rule in this Province, the lowest number of births was registered during

the months of April and May. This is accounted for by the people being out of doors and the men not being with the women in August and September and the prevalence of malarial fevers. The highest number was registered in September and October, being the result of the people sleeping together in their houses during the winter months. Thus the average number of births registered during the months of April and May (1891—1895) was 1,730 and 1,866 respectively, whereas in September and October the number rose to 3,349 and 3,490. But in the famine year of 1900, though the minimum number of births took place, as usual, in May, there was no great increase in the births in September. The extraordinary diminution of the births in the autumn months of 1900 shows that either famine interfered with the productiveness of the people or that they had been reduced in numbers by migration. The latter we know to be the case; the former is not so certain. The rule is that by taking the birth-rate that has been fairly steady for some years, and dividing by it the births in another year, multiplied by a 1,000 we obtain a number which should be the population giving those births.

25. It was for this reason that I made out this return. I knew that a great many people had migrated from the Hissar District, and there was no other means of estimating how many had done so. If we glance at the table, we find that the births in the years 1891, 1892, 1893 were much less than those in the years 1894, 1895, 1896. The cause of this was the greater care taken in later years in checking birth registers and entering omissions. I therefore take the figures of these three last years and those of 1899 as a standard: they all approximate fairly closely. I take the first nine months of the year in each case as I have to do in 1900, having no figures after September in this year. The increase in the population of the Province in the period 1881 to 1891 amounted to 8·6 for the districts in the eastern plains: therefore, a tenth of this increase is added to the census population of 1891 as an estimate of the population of 1892, and again a tenth of the population of 1892 is added to this estimate of the population of 1892 to get the figure for 1893, and so on, the presumption being that the population goes on increasing in a geometrical progression from one census to the next. In this way the estimated population up to the end of September 1900 comes to 842,167. Multiplying the number of births in the nine months of 1900 by 1,000 and dividing it by 34, the average birth-rate obtained in the years 1894, 1895, 1896 and 1899, the population comes to 428,000 against 842,167, the estimated population, which means that nearly one-half had migrated during the time that famine was very severe.

ROHTAK.

26. Next to Hissar, the district which suffered most severely from famine was Rohtak. The deaths from fevers in Rohtak rose

Monthly mortality from fevers in 1900.

from 1,197 in December 1899 to 1,436 in January 1900. In the following month the number fell to 942, but it rose again to 1,123 in March and still further to 1,651 in April. During May, June and July the rise in the fever mortality was very great, *viz.*, 2,807, 2,789 and 2,899 respectively. In August and September the fever deaths fell and numbered 2,547 and 2,559. In October the number of deaths was highest, *viz.*, 4,022. But it must be remembered that in this month, owing to the prevalence of malarial fevers, the increase in the death-rate was very great in many parts of the Province.

27. Comparing the deaths from fevers, month by month, with the corresponding statistics in 1891—1895, it appears that the mortality in January 1900 was 584 above the average. In February and March the excess amounted to only 219 in each month. In the following month it was 684. But the great increase began in May. In this month the fever mortality exceeded the average by 1,500, and in June the excess was still greater, *viz.*, 1,600. The maximum was reached in July, when the increase over the normal was 1,998. In August also the increase was very great, *viz.*, 1,731, though there was a slight decrease as compared with the preceding month.

28. Thus, during the eight months of 1900, the total fever mortality was 16,194 against 7,639 for the corresponding period in the five years 1891—1895, showing an excess of 8,555.

29. The figures quoted above show that the increase occurred mostly during the months of May to August. During this period it amounted to 6,829. In the first four months, January to April, the excess was only 1,706.

30. As in Hissar, so also in the Rohtak District, cholera appeared in the winter month of December 1899 in one of the famine relief camps, causing 38 deaths. In January the number fell to 6, and in February the district was entirely free from the disease. In March cholera again made its appearance, but the deaths did not exceed 22. In April the number of deaths was 97, and in May 250. The disease attained its maximum fatality in June, when 951 deaths were recorded. In July it continued to prevail, though the mortality from it was lower by one-third, as compared with the previous month. In August the deaths declined to 94 and in September the number was only 22. Altogether 1,460 deaths were registered from cholera during the nine months of the present year. The epidemic, however, was not so severe as in 1892. In that year no less than 2,579 deaths occurred in the month of May alone.

31. Under the head of dysentery and diarrhoea the mortality from January to August amounted to 377 against 196 in the corresponding period in 1891—1895. The increase was not so high as in Hissar.

It is very curious that although the mortality from fevers was almost equal in May, June and July, the deaths from dysentery and diarrhoea fell from 88 in May to 26 in June. The probable reason appears to be that many of the acute cases of dysentery and diarrhoea were entered in the registers as those of cholera, which was most fatal in June.

32. The mortality from small-pox during the eight months of 1900 was 332. Small-pox deaths. The deaths, as is usual in this Province, were very high in May. In that month 133 deaths were reported.

33. On examining the age returns of this district it appears that there Deaths from all causes compared with the average. was a total of 12,537 deaths of all ages among males and 10,757 among females registered during the eight months of 1900, as compared with 6,108 and 5,009 in the corresponding period of 1891—1895, or double the average. The mortality in the age-period between 5 and 10 years was nearly three times higher than the average; between 10 to 15 it was three times higher among males and four-and-a-half times among females; between 15 and 20 a little more than three times greater among males and a little more than four times among females; and between 50 and 60 years about three times greater than the average among males and three-and-a-half times among females.

34. A comparison of the mortality registered under each age-period, month Age-periods in which the mortality was excessive. by month, in 1900 with the average in the five years 1891--1895 shows that the excess was enormous between 5 to 10, 10 to 15, 15 to 20, and to a somewhat lesser extent in 50 to 60 in the months of June, July and August, as will be seen from the following table :—

AGE-PERIODS.		In June 1900.	Average in June 1891—1895.	In July 1900.	Average in July 1891—1895.	In August 1900.	Average in August 1891—1895.
5 to 10	Males . .	238	55	195	37	168	23
	Females . .	178	48	153	28	137	27
10 to 15	Males . .	176	33	144	15	110	15
	Females . .	157	19	127	16	119	10
15 to 20	Males . .	160	24	146	14	95	13
	Females . .	142	15	115	14	95	11
50 to 60	Males . .	320	54	275	40	233	35
	Females . .	272	34	277	29	190	23

As cholera was very severe in Rohtak in June and July, a portion of the increase may be due to that cause; but in August only 94 deaths were reported from cholera, and yet the increase in this month was nearly as considerable as in June and July, so that the chief cause of the excessive mortality was fever and the diseases grouped under the head "All other causes."

35. Of the 23,294 deaths registered from all causes during the eight months of this year, 4,215, or 18 per cent., took place among infants under one year, 3,694, or 16 per cent., between 1 and 5, and 4,354, or 19 per cent., among old persons of 60 and over. In the corresponding period in 1891—1895 the percentage among infants was very high, *viz.*, 27, or 9 per cent. higher than in the present year. Among children between 1 and 5, the percentage in 1891—1895 was 18 and among old people 16.

36. An examination of the age returns for the Rohtak District shows that there was a considerable decrease in the infantile mortality in June and July. In these two months, out of a total of 8,779 deaths from all causes, only 1,064, or 12 per cent., occurred among infants, whereas the corresponding percentage in the year 1891—1895 was as high as 30. The cause of the proportionately lower rate of mortality among infants than the average was probably the same as in the Hissar District, *viz.*, a diminished birth-rate owing to a large number of people having left the district for want of food. In August and September only 2,150 and 1,750 births were registered against 2,917 and 3,046, the average number of births for those months in the years 1894, 1895, 1896, 1897 and 1899 that fairly represent the average annual births of the district.

37. The estimated population of the Rohtak District up to the end of September comes to 640,952. By multiplying the number of births in 1900 by a 1,000 and dividing it by the average birth-rate of 33, the population comes to 454,394, which means that 186,558 persons, or 29 per cent., had migrated.

GURGAON.

38. In this district the mortality from fevers during the first four months of 1900 was below the average. In January 1,179 deaths were reported, the number for the corresponding month in 1891—1895 being 1,262. In February the deaths were 970 against 1,021, in March 1,058 as compared with 1,106 and in April 1,132 against 1,186. In May the mortality began to rise. In that month 1,430 deaths occurred, exceeding the average by 216. In June the deaths were 1,590, or 463 above the average. In July and August the deaths numbered 1,730 and 1,629 respectively, nearly double the average. It will thus be seen that the increase in the fever mortality was very little in Gurgaon, as compared with the districts of Hissar and Rohtak. The number of deaths during the four months of May to August exceeded the average in 1891—1895 by only 2,258.

39. From dysentery and diarrhoea the mortality during the eight months of 1900 was 732 against 533 in 1891—1895. In August the deaths were 234 against the average of 102.

40. The district was free from cholera during the first five months of this year. The disease broke out in June, attained its maximum intensity in July, and declined in August. The deaths reported in these three months were 164, 541 and 244 respectively.

41. Small-pox was most prevalent in March, April and May. In these months the deaths reported were 1,039. The epidemic, however, was not as severe as in 1896, the mortality in the corresponding months of that year being as high as 1,884.

42. The number of deaths reported from all causes in this district during the first eight months of 1900 was 9,741 among males and 8,186 among females, the figures for the corresponding period in 1891-1895 being 6,996 and 5,892 respectively. There is nothing in the age returns of this district that is worth noticing, except that the senile mortality (60 and over) was twice the average, the excess being very considerable in June, July and August. In the age-periods 5 to 10, 10 to 15 and 20 to 30 also the mortality in July and August was higher than the average.

43. The births registered in August and September 1900 were 2,761 and 2,504 respectively, as compared with 3,706 and 3,559, the average number in the years 1894, 1895, 1896 and 1899, that fairly represents the average annual births. The reduction in the estimated population caused by emigration was 27 per cent. against 29 per cent. in Rohtak and 49 per cent. in Hissar.

44. In the statement given below the deaths from all causes during the first eight months of 1900 in each of the three districts are contrasted with the average mortality in the corresponding months in 1891 to 1895:—

District.	Deaths from all causes in January to August 1900.	Deaths from all causes in the corresponding months in 1891—1895.	Increase.
Hissar	42,309	15,137	27,172
Rohtak	23,294	11,117	12,177
Gurgaon	17,927	12,888	5,029

It will be seen at a glance from the above figures that the increase in the mortality was in proportion to the severity with which the famine visited each district. In Hissar the famine was most severe, and in this district the mortality was nearly three times higher than the average. The district of Rohtak suffered less severely than Hissar and in this district the mortality also was not so high as in Hissar, being twice the average. The district of Gurgaon, on the other hand, which was not very severely affected by the famine, had a small increase over the average mortality.

Statement contrasting the mortality registered from all causes under different age periods during the first eight months of the year 1900 with the average mortality registered during the corresponding months of the years 1891 to 1895 in the district of Hissar.

1891-1895.

MONTHS.	UNDER ONE YEAR		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
January . .	211	182	126	117	32	32	19	13	18	13	62	56	56	49	68	62	79	61	187	168	852	754
February . .	104	163	100	85	28	24	17	15	20	13	59	41	57	49	66	56	75	58	156	150	772	651
March . .	222	163	140	111	36	31	20	20	18	13	69	52	66	60	69	51	63	60	177	167	900	732
April . .	230	168	205	165	55	49	32	24	24	17	61	51	60	54	67	53	78	54	174	156	881	732
May . .	268	206	330	281	126	95	79	58	52	40	102	63	92	87	97	80	109	78	212	174	1,469	1,185
June . .	270	231	310	289	113	94	67	53	42	37	101	101	85	89	77	77	85	55	163	137	1,320	1,163
July . .	267	229	216	200	70	38	35	33	25	23	64	63	46	55	56	43	60	38	145	127	934	849
August . .	282	221	217	203	59	50	32	26	21	16	49	49	40	47	49	37	48	35	135	105	932	788
TOTAL .	1,944	1,563	1,644	1,451	519	416	301	232	220	172	507	506	502	489	540	450	617	442	1,349	1,181	8,210	6,927
Per cent. of all ages.	24	23	20	21	6	6	4	3	3	3	7	7	6	7	7	7	7	6	16	17	...	...

1900.

January . .	374	278	290	226	110	91	63	40	35	33	95	82	126	105	156	72	193	93	403	320	1,845	1,340
February . .	286	211	267	216	76	69	48	39	41	38	77	62	91	79	116	72	151	86	335	253	1,488	1,125
March . .	365	292	459	404	266	170	116	97	91	86	180	140	188	138	210	164	220	143	429	355	2,464	1,989
April . .	507	424	885	778	409	401	287	234	228	227	320	312	298	301	328	275	325	331	614	568	4,201	3,854
May . .	535	419	919	870	320	290	150	136	128	113	212	213	216	227	246	191	237	194	558	558	3,557	3,211
June . .	416	382	736	686	308	300	205	136	103	90	291	263	263	249	293	219	267	194	723	556	3,610	3,075
July . .	317	273	529	527	353	262	217	179	117	87	269	252	278	300	335	273	321	215	762	593	3,493	2,972
August . .	333	252	380	350	153	139	89	80	56	52	136	133	127	117	166	147	192	123	610	410	2,212	1,833
TOTAL .	3,133	2,531	4,495	4,057	1,911	1,722	1,175	941	799	726	1,580	1,457	1,587	1,516	1,850	1,410	1,906	1,387	4,439	3,645	22,993	19,403
Per cent. of all ages.	14	13	20	21	8	8	5	5	3	4	7	8	7	8	8	7	9	7	19	19	...	...
Number of times the mortality was higher than the average.	1.6	1.6	2.7	2.7	3.7	4.1	3.9	3.8	8.6	4.2	2.7	2.8	3.1	3.1	3.3	3.0	3.0	3.1	3.2	3.0	2.7	2.8

Statement contrasting the mortality registered from all causes under different age periods during the first eight months of the year 1900 with the average mortality registered during the corresponding months of the years 1891 to 1895 in the district of Rohtak.

1891-1895.

January . .	181	139	94	74	27	22	16	11	18	12	47	37	48	41	58	47	59	44	103	99	553	528
February . .	153	119	67	57	25	18	15	11	16	11	41	35	46	34	45	39	49	33	92	85	550	442
March . .	166	122	94	76	28	24	19	13	18	14	50	47	51	44	54	47	63	47	116	111	659	548
April . .	184	136	115	87	36	26	18	15	18	11	50	45	46	42	51	40	67	40	119	124	705	566
May . .	274	203	228	177	103	78	65	33	44	29	108	89	91	90	92	79	90	69	156	157	1,250	1,004
June . .	273	208	242	192	55	48	33	19	24	15	48	58	47	51	49	43	54	31	121	91	950	765
July . .	232	178	152	133	37	28	15	16	14	14	36	45	31	42	39	27	40	23	97	81	666	593
August . .	226	195	138	119	28	27	15	10	13	11	32	39	27	36	35	30	35	23	95	74	645	563
TOTAL .	1,689	1,300	1,130	915	339	271	198	128	165	11	412	395	390	383	473	352	457	319	902	828	6,108	5,099
Per cent. of all ages.	28	26	18	18	6	5	3	3	3	2	7	8	6	8	7	7	7	6	15	17	...	...

Statement contrasting the mortality registered from all causes under different age periods during the first eight months of the year 1900 with the average mortality registered during the corresponding months of the years 1891 to 1895 in the district of Rohtak—continued.

1900.

MONTHS.	UNDER ONE YEAR.		1-5		5-10		10-15		15-20		20-30		30-40		40-50		50-60		OVER 60.		All ages.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
January . .	264	257	146	106	48	52	29	28	33	21	41	59	66	47	70	49	106	64	262	203	1,065	816
February . .	244	183	113	88	30	28	9	6	6	12	35	28	43	38	61	41	59	33	157	100	757	557
March . . .	199	183	173	134	42	41	18	16	15	26	46	30	51	32	59	46	55	49	183	128	842	665
April . . .	330	203	302	263	91	81	36	31	29	29	46	59	62	61	67	56	108	72	233	199	1,274	1,054
May	420	292	459	443	185	135	82	81	40	58	83	85	108	99	107	93	199	166	422	357	2,108	1,812
June	285	267	301	246	238	178	176	157	160	142	142	135	155	155	225	206	320	272	371	349	2,374	2,107
July	263	248	265	223	195	153	144	127	149	115	121	122	187	187	215	220	275	277	420	395	2,231	2,067
August . . .	320	286	240	192	163	137	110	119	55	95	91	103	145	96	157	125	233	190	329	246	1,886	1,583
TOTAL . . .	2,296	1,919	1,999	1,655	993	805	604	568	527	498	608	621	817	715	951	836	1,355	1,123	2,377	1,977	12,537	10,757
Per cent. of all ages.	18	18	16	16	7	7	5	5	4	5	5	6	7	7	8	8	11	10	19	18	...	...
Number of times the mortality was higher than the average.	1.3	1.5	1.8	1.9	2.9	2.10	3.1	4.4	3.2	4.2	1.5	1.6	2.1	1.9	2.3	2.4	2.10	3.5	2.6	2.4	2.0	2.1

Statement contrasting the mortality registered from all causes under different age periods during the first eight months of the year 1900 with the average mortality registered during the corresponding months of the years 1891 to 1895 in the District of Gurgaon.

1891-1895.

January . .	239	213	117	95	45	37	35	27	37	22	61	53	72	65	114	103	87	85	100	95	908	793
February . .	170	151	96	100	43	36	26	22	27	21	56	45	64	43	74	58	89	85	104	96	748	657
March . . .	173	155	107	85	44	30	31	24	35	26	61	47	67	53	95	83	102	92	104	89	824	684
April	192	150	130	112	55	40	34	31	34	23	64	54	78	74	110	102	106	87	94	88	895	760
May	243	182	183	161	60	46	37	33	32	24	61	61	84	68	114	103	112	88	90	74	1,016	840
June	270	217	188	138	65	50	42	29	29	21	57	54	79	70	117	84	100	76	68	58	1,015	797
July	239	197	145	126	41	36	25	22	24	21	47	39	54	54	92	79	66	42	64	49	796	671
August . . .	269	221	177	148	36	30	23	23	19	20	40	48	44	46	49	44	54	43	82	63	793	685
TOTAL . . .	1,704	1,486	1,143	965	390	305	253	211	237	178	450	401	542	473	765	656	716	605	706	612	6,996	5,892
Per cent. of all ages.	26	25	16	17	6	5	4	4	3	3	6	7	8	8	11	11	10	10	10	10	...	...

1900.

January . .	234	246	131	103	30	28	23	10	21	14	108	62	101	70	101	67	95	63	148	138	992	801
February . .	193	182	97	95	30	28	14	13	20	14	59	51	94	37	81	58	89	68	136	96	813	642
March	238	226	158	155	60	50	22	15	21	22	85	67	71	66	94	44	95	72	145	117	989	834
April	295	209	239	250	59	56	26	24	35	29	67	68	71	61	30	57	92	67	138	129	1,102	950
May	298	224	256	249	62	61	33	27	31	26	90	91	80	85	86	76	93	64	186	144	1,215	1,047
June	280	233	234	259	87	66	54	40	44	35	123	94	102	103	131	86	118	78	188	181	1,361	1,175
July	260	270	283	269	195	131	87	58	67	43	148	136	135	116	155	129	126	77	260	197	1,717	1,426
August . . .	325	271	316	294	107	108	61	41	36	21	113	107	102	122	125	91	146	75	221	181	1,552	1,311
TOTAL . . .	2,123	1,861	1,714	1,674	630	528	320	228	275	204	793	676	757	660	853	608	854	564	1,422	1,183	9,741	8,166
Number of times the mortality was higher than the average.	1.2	1.3	1.5	1.7	1.6	1.7	1.3	1.1	1.1	1.1	1.8	1.7	1.4	1.4	1.1	...	1.2	...	2.0	1.9	1.4	1.4
Per cent. of all ages.	22	23	18	21	6	6	3	3	3	3	8	8	8	8	9	7	9	7	14	14	...	...

*Statement A showing the deaths registered from principal diseases by months in the famine years 1899-00
Hissar, Rohtak.*

DISTRICTS AND MONTHS.		NUMBER OF DEATHS.																			
		1891.				1892.				1893.				1894.				1895.			
		Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.
Hissar.	January .	...	97	1,086	23	...	13	1,551	20	...	28	1,180	25	...	...	1,322	26	...	25	953	20
	February .	...	58	1,112	22	...	3	1,370	10	...	3	930	26	...	14	1,225	18	...	22	815	17
	March .	...	25	1,035	16	1	41	1,694	19	...	...	1,055	18	...	25	1,535	18	...	52	1,037	24
	April .	5	22	1,154	24	188	55	1,000	35	...	...	964	25	...	41	1,600	21	...	131	1,307	25
	May .	...	20	1,561	32	2,391	215	2,209	105	11	...	1,255	58	...	53	1,678	33	...	193	1,636	33
	June .	4	30	1,633	31	2,253	136	1,955	45	28	...	1,312	55	...	41	1,233	21	...	146	1,413	45
	July .	61	18	1,713	62	384	178	1,339	23	...	...	1,117	45	...	17	954	19	...	75	1,132	53
	August .	48	16	1,092	61	35	66	1,355	37	...	...	1,116	65	...	13	1,098	41	...	33	1,120	56
	September .	53	5	1,110	85	28	16	3,011	143	...	...	1,040	46	...	5	1,009	34	...	23	973	43
	October .	5	2	1,055	33	16	7	4,872	103	...	...	1,171	42	...	...	1,104	29	...	21	974	26
	November .	...	6	1,074	40	...	12	4,047	99	...	...	1,321	47	17	2	974	23	...	183	1,216	30
	December .	...	2	1,067	29	...	29	2,010	56	...	...	1,311	23	...	18	1,053	26	...	232	1,538	33
TOTAL .		176	301	14,692	463	5,392	771	27,094	701	42	31	14,195	498	17	240	14,935	315	...	1,182	14,694	433
Rohtak.	January .	...	3	934	22	...	140	1,221	21	...	...	623	20	...	2	877	17	...	...	593	21
	February .	...	5	944	9	...	55	858	9	...	...	537	12	...	...	763	16	...	...	473	7
	March .	...	12	854	91	...	26	1,505	13	...	...	551	18	...	...	895	6	...	5	703	19
	April .	...	7	816	9	30	22	1,323	21	...	1	482	26	...	2	1,312	16	...	...	873	17
	May .	...	37	1,478	20	2,579	15	2,059	74	...	...	705	37	...	1	1,394	32	...	8	1,561	29
	June .	3	41	1,320	24	510	2	1,232	17	...	3	781	39	...	1	1,205	12	...	4	1,494	31
	July .	46	23	1,156	23	38	...	629	11	...	1	604	28	...	...	913	27	...	4	1,003	33
	August .	6	11	730	10	24	1	680	16	...	1	882	39	...	...	932	47	...	2	854	39
	September .	...	3	835	31	4	1	1,161	30	...	...	818	42	...	...	910	49	...	4	994	25
	October .	...	1	1,206	41	...	...	1,500	33	...	2	1,042	26	...	...	1,143	28	...	1	1,053	24
	November .	...	27	1,432	44	...	...	1,372	54	...	1	1,105	30	...	1	1,119	36	...	10	1,133	32
	December .	...	143	1,309	15	...	...	976	20	...	1	911	18	...	13	935	32	...	12	1,265	35
TOTAL .		55	313	12,614	339	3,215	271	14,526	299	...	10	9,260	335	...	20	12,483	318	...	50	11,682	317
Gurgaon.	January .	...	2	1,341	58	...	10	1,700	102	...	31	1,187	61	...	23	1,175	50	...	7	611	55
	February .	...	24	1,097	54	...	2	1,362	40	...	30	852	38	...	26	974	37	...	12	718	47
	March .	...	40	972	33	...	84	1,601	36	...	28	917	37	...	25	1,168	38	...	55	870	46
	April .	9	42	873	36	57	128	1,916	70	...	23	764	37	...	50	1,333	63	...	100	1,010	47
	May .	133	66	921	56	494	87	1,461	49	...	39	771	76	...	12	1,332	67	...	170	1,435	93
	June .	75	41	1,033	80	463	56	1,580	97	...	33	877	92	...	97	1,033	51	...	140	1,108	74
	July .	42	30	1,133	82	85	17	921	65	...	35	728	102	...	47	809	83	...	48	960	94
	August .	...	7	710	73	33	13	801	66	...	3	1,075	123	...	31	698	138	...	12	892	111
	September .	...	1	995	103	127	11	1,818	237	...	3	1,117	135	...	10	1,087	116	...	2	887	110
	October .	...	1	1,743	188	17	12	1,781	202	...	1	1,212	116	...	7	1,476	122	...	8	1,190	133
	November .	...	...	1,999	13	...	9	2,435	192	...	2	1,350	116	...	10	1,429	102	...	21	1,370	80
	December .	...	4	1,807	10	...	14	1,618	117	...	10	1,231	90	...	15	1,208	67	...	124	1,342	73
TOTAL .		259	258	14,727	1,000	1,280	475	19,114	1,275	...	244	12,181	1,023	...	462	14,027	946	...	711	12,722	363

355

and 1896-97 as compared with the figures for the previous years 1891 to 1895 in the Districts of
and Gurgaon.

AVERAGE FOR 1891 TO 1895.				DEATHS IN FAMINE YEARS.								DEATHS IN FAMINE YEARS.							
				1896.				1897.				1899.				1900.			
Cholera.	Small-pox.	Fever.	Dysentery and Diarrhea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhea.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhea.
...	33	1,219	23	...	385	2,405	22	...	89	1,139	66	...	3	1,167	21	89	30	2,039	226
...	20	1,108	19	...	381	1,557	13	...	53	837	45	...	7	1,072	28	2	68	1,683	105
...	29	1,283	19	...	469	1,210	30	...	92	1,081	38	...	10	1,148	29	515	103	2,660	233
39	50	1,313	27	...	509	1,162	25	...	109	1,302	65	...	21	1,189	38	1,735	213	4,221	360
481	98	1,678	53	...	470	1,259	21	...	115	1,680	101	...	23	1,435	42	925	401	3,661	318
458	70	1,527	40	...	260	1,422	22	11	67	1,863	105	...	31	1,131	32	1,369	232	3,715	251
69	58	1,255	41	...	131	1,285	34	160	56	1,678	116	5	8	1,194	66	1,591	12	3,613	196
17	27	1,222	57	...	53	1,396	74	147	17	2,013	238	...	7	1,605	58	121	42	3,017	261
16	11	1,436	70	...	25	1,511	165	154	14	3,308	271	...	3	1,151	51	8	20	4,568	273
4	6	1,835	51	...	12	1,322	114	6	6	5,175	235	...	1	1,180	81	...	...	...	...
3	41	1,726	48	...	52	1,181	85	...	7	4,091	189	...	8	1,372	142	...	...	...	...
...	62	1,488	35	...	71	1,201	93	...	1	2,388	101	308	15	1,749	260	...	...	...	...
1,107	505	17,122	483	...	2,821	16,944	703	538	626	26,555	1,571	308	140	15,399	868	...	...	...	...
...	31	852	20	...	65	2,049	24	...	...	925	27	...	...	793	31	6	5	1,436	25
...	12	723	11	...	66	1,178	9	...	...	577	8	...	...	737	30	...	1	942	21
...	9	901	29	...	112	1,399	21	...	1	731	12	...	...	860	13	22	17	1,123	26
6	6	967	18	...	75	1,302	27	...	2	689	21	...	...	837	18	97	66	1,651	52
516	12	1,307	38	19	47	1,360	31	...	1	768	18	...	...	1,285	31	250	133	2,807	88
109	10	1,189	25	1	28	1,361	34	...	4	1,088	35	...	...	1,239	15	651	61	2,789	26
17	6	901	25	...	5	819	27	...	6	761	33	...	...	836	23	618	31	2,839	38
6	3	816	30	...	...	907	40	...	1	781	6	...	...	1,750	47	94	18	2,517	101
...	2	914	35	...	1	1,331	80	...	...	1,498	41	...	...	1,075	30	22	5	2,559	156
...	...	1,189	31	...	...	858	33	...	...	1,903	83	...	1	890	15	...	...	4,020	18
...	8	1,238	35	...	...	1,011	31	...	...	2,177	90	...	...	1,461	20	...	...	...	...
...	34	1,083	24	...	2	888	34	...	...	1,235	80	38	1	1,197	38	...	...	...	...
651	133	12,113	322	20	401	11,497	391	...	15	13,160	518	31	2	12,986	311	...	...	...	...
...	17	1,262	67	...	309	1,703	48	...	26	750	51	...	21	1,082	39	...	70	1,179	60
...	25	1,020	48	...	339	1,259	26	...	29	628	32	...	27	975	29	...	99	970	37
...	46	1,10	38	...	603	1,235	39	...	47	697	30	...	43	980	28	...	308	1,053	59
13	70	1,18	51	...	686	851	52	...	41	820	28	...	69	910	39	...	418	1,132	78
125	97	1,18	63	40	595	1,122	52	...	40	1,001	49	...	106	1,268	56	...	313	1,430	58
108	71	1,127	79	216	265	1,011	68	...	23	992	48	...	101	1,063	43	161	190	1,590	95
26	35	915	85	18	91	717	75	...	18	822	48	...	17	803	67	511	135	1,730	111
7	14	895	102	32	31	837	101	2	4	1,040	121	...	18	2,186	180	211	65	1,629	231
25	5	1,201	140	8	17	1,120	150	39	10	2,317	258	...	1	2,010	111	171	23	2,012	261
4	6	1,480	152	9	6	1,160	113	20	4	3,639	282	...	1	1,132	150	...	...	...	...
...	8	1,716	125	...	33	1,198	93	...	4	2,711	203	...	8	1,463	95	...	...	...	...
...	33	1,461	92	...	25	1,092	95	...	8	1,839	110	...	11	1,301	75	...	...	...	...
303	430	14,551	1,042	58	3,006	3,368	915	61	251	17,289	1,266	...	423	15,581	925	...	...	...	...

Statement B showing the deaths from all causes month by month according to different age periods and sexes during the famine years 1899-1900 and 1896-97 and the previous five years 1891-1895 in the districts of Hissar, Rohtak, and Gurgaon.

AFFECTED DISTRICTS.		UNDER ONE YEAR.		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
JANUARY.																							
Hissar	1891 . . .	134	127	146	133	29	26	15	12	11	15	60	45	46	33	61	59	75	62	190	135	769	64
	1892 . . .	167	149	135	105	39	39	17	14	30	19	94	83	85	71	100	102	136	100	224	226	1,027	908
	1893 . . .	171	165	122	138	42	47	25	16	11	12	38	46	46	41	56	51	55	60	156	175	722	751
	1894 . . .	339	271	133	109	34	23	23	14	14	14	62	60	59	68	70	69	83	53	191	178	1,008	859
	1895 . . .	242	196	95	98	15	25	13	10	22	6	54	44	43	32	50	33	48	46	150	125	732	615
	Average number . . .	211	182	126	117	22	32	19	13	18	13	62	56	56	49	68	62	72	64	182	168	852	755
Famine years.	1896	533	397	327	260	89	85	32	37	42	36	78	72	96	81	120	101	123	105	333	350	1,779	1,524
	1897	228	210	137	118	39	31	26	17	19	25	43	47	43	35	57	46	83	40	230	206	905	775
	1899	306	275	93	107	42	22	21	11	22	17	60	68	47	49	53	49	73	52	163	162	885	812
	1900	374	278	290	226	110	91	63	40	35	33	95	82	125	105	155	72	193	93	403	320	1,435	1,310
	Rohtak	1891 . . .	131	101	91	92	29	23	18	5	19	15	50	44	57	41	63	44	81	42	96	112	635	519
1892 . . .		235	176	195	149	39	46	18	11	26	12	78	44	80	58	85	65	64	61	136	135	956	757
1893 . . .		129	85	47	26	33	20	24	20	27	24	27	26	25	32	42	38	43	36	64	60	461	377
1894 . . .		227	167	75	53	17	14	14	14	15	6	53	40	55	36	61	48	71	53	121	101	709	532
1895 . . .		184	156	62	52	20	8	4	7	5	8	29	29	22	39	41	39	38	29	19	90	504	457
Average number . . .		181	139	94	74	27	22	16	11	18	13	47	37	48	41	58	47	59	44	103	99	653	528
Famine years.	1896	433	366	229	228	82	65	28	24	33	17	67	90	70	91	108	106	131	103	264	266	1,475	1,356
	1897	217	192	75	83	24	24	12	11	14	9	46	44	50	32	56	33	99	51	199	172	792	654
	1899	209	181	95	91	41	30	24	15	19	20	36	26	30	37	44	21	25	37	19	92	632	550
	1900	264	257	146	106	48	52	29	28	33	21	41	59	66	47	70	49	106	64	262	203	1,055	886
	Gurgaon	1891 . . .	179	172	144	113	43	36	32	24	40	29	64	54	91	73	85	77	76	78	122	139	881	795
1892 . . .		363	292	136	104	74	74	51	43	58	41	52	50	84	79	206	213	119	123	59	62	1,202	1,086
1893 . . .		196	190	95	95	26	18	35	25	43	13	92	64	83	70	89	79	71	76	129	120	859	750
1894 . . .		283	238	130	90	57	40	34	33	29	19	31	37	51	44	119	102	114	94	112	84	950	778
1895 . . .		174	174	80	74	25	18	21	14	15	8	66	59	51	59	69	43	57	51	13	70	646	570
Average number . . .		239	213	117	95	46	37	35	27	37	22	61	53	72	65	114	103	87	85	100	95	908	796
Famine years.	1896	372	299	220	204	49	43	28	32	33	28	134	98	115	110	114	116	111	124	208	216	1,364	1,270
	1897	175	161	83	88	26	17	14	9	17	3	50	42	37	50	60	40	49	52	107	99	618	561
	1899	237	218	136	113	31	26	21	14	19	13	77	47	78	63	63	51	54	41	108	102	824	718
	1900	234	246	131	103	30	28	23	10	21	14	103	64	101	70	101	67	95	63	148	138	992	801
	FEBRUARY.																						
Hissar.	1891 . . .	143	105	125	103	36	27	10	10	18	11	53	37	63	40	63	62	89	63	183	161	783	619
	1892 . . .	141	106	109	78	31	30	17	25	35	16	97	54	65	74	91	68	120	80	189	180	895	711
	1893 . . .	141	168	70	71	28	24	27	10	12	15	39	39	48	44	51	55	35	55	139	137	591	618
	1894 . . .	331	258	111	91	29	20	10	17	25	12	61	43	61	50	78	58	82	57	163	170	951	776
	1895 . . .	215	178	84	83	17	20	19	15	12	12	44	34	48	33	47	35	46	37	106	101	638	548
	Average number . . .	194	163	100	85	28	24	17	15	20	13	59	41	57	48	66	56	75	58	156	150	772	657
Famine years.	1896	417	300	241	233	89	80	30	19	36	20	74	59	58	55	86	65	87	63	197	189	1,315	1,064
	1897	156	148	111	95	36	30	22	12	13	16	36	28	39	35	32	39	64	43	151	138	660	584
	1899	247	211	91	71	44	39	18	12	17	16	75	37	64	61	67	57	71	45	155	136	849	685
	1900	286	211	267	216	76	69	48	39	41	38	77	62	91	79	116	72	151	86	335	253	1,488	1,125

Statement B showing the deaths from all causes month by month according to different age periods and sexes during the famine years 1899-1900 and 1896-97 and the previous five years 1891-1895 in the districts of Hissar, Rohtak, and Gurgaon—continued.

AFFECTED DISTRICTS.	UNDER ONE YEAR.		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.			
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.		
FEBRUARY—contd																								
Rohtak	1891 . . .	126	118	97	94	33	31	17	14	23	8	59	35	73	42	50	48	49	30	111	93	638	513	
	1892 . . .	177	103	100	85	25	21	14	8	12	14	53	49	56	42	55	54	55	36	110	88	657	510	
	1893 . . .	102	85	44	18	29	13	20	14	27	11	31	32	28	25	38	31	45	34	65	61	429	324	
	1894 . . .	208	155	54	43	20	13	19	10	12	15	37	37	48	37	47	40	62	44	113	113	620	505	
	1895 . . .	154	133	42	36	19	12	6	10	8	8	23	21	27	24	34	21	34	23	62	68	409	356	
	Average number . . .	153	119	67	57	25	18	15	11	16	11	41	35	46	34	45	39	49	33	92	85	550	442	
Famine years.	1893.	285	230	162	157	70	40	24	20	22	12	48	51	52	59	55	42	53	52	122	104	899	770	
	1897.	160	113	42	42	24	17	18	9	14	12	41	28	26	22	37	30	43	37	91	84	496	394	
	1899.	174	153	80	71	35	26	30	21	22	27	33	37	44	28	27	27	46	21	78	81	569	492	
	1900.	244	183	113	88	30	28	9	6	6	12	35	23	43	38	61	41	59	33	157	100	757	557	
Gurgaon	1891 . . .	145	141	146	84	44	34	25	27	28	33	62	56	67	39	66	60	62	65	102	103	747	615	
	1892 . . .	185	152	99	85	66	51	26	26	30	20	40	25	62	32	92	67	171	164	169	154	940	776	
	1893 . . .	174	153	81	66	26	25	27	14	33	20	70	60	80	46	78	52	59	61	102	90	730	607	
	1894 . . .	208	175	97	77	54	52	37	33	22	27	37	34	52	49	78	58	107	91	88	71	780	667	
	1895 . . .	136	130	56	68	23	18	13	11	20	5	69	52	61	48	57	52	48	43	58	64	541	491	
	Average number . . .	170	151	96	100	43	36	26	22	27	21	56	45	64	43	74	58	89	85	104	96	748	657	
	Famine years.	1896.	297	243	169	153	56	39	34	15	24	18	112	86	85	71	84	71	102	82	132	149	1,077	927
		1897.	126	103	49	62	28	12	17	13	6	8	58	28	54	48	41	46	50	40	89	70	518	435
		1899.	203	203	111	84	39	26	14	17	22	10	72	49	62	58	66	51	57	54	111	97	757	649
		1900.	193	182	97	85	30	28	14	13	20	11	59	51	94	37	81	58	89	68	136	96	813	642
MARCH.																								
Hissar.	1891 . . .	134	95	132	107	29	33	8	18	13	10	49	44	55	44	51	39	74	56	161	143	706	589	
	1892 . . .	157	108	197	113	51	28	32	16	17	6	109	69	105	66	99	65	120	85	264	238	1,151	794	
	1893 . . .	181	154	160	93	29	41	10	19	20	10	56	46	60	60	52	48	65	43	124	127	706	611	
	1894 . . .	365	229	137	122	48	32	22	34	23	16	81	59	69	72	88	74	91	70	201	207	1,125	905	
	1895 . . .	272	229	133	118	23	35	18	21	18	22	51	44	43	60	57	31	63	48	133	122	811	730	
	Average number . . .	222	163	140	111	36	34	20	20	18	13	69	52	66	60	69	51	83	60	177	167	900	732	
	Famine years.	1896.	342	264	252	231	43	76	30	25	27	17	72	45	33	48	50	38	79	37	190	159	1,163	940
		1897.	198	162	153	140	42	39	25	19	18	10	39	51	37	30	54	40	68	41	201	172	840	704
		1899.	280	213	97	107	42	35	32	11	28	12	62	58	44	47	67	45	59	39	182	155	895	723
		1900.	365	292	459	404	206	170	116	97	91	86	180	140	163	138	210	174	220	143	429	355	2,461	939
Rohtak	1891 . . .	150	85	114	95	31	26	10	12	15	12	52	42	45	41	51	49	67	48	94	112	629	523	
	1892 . . .	184	127	140	129	48	43	29	14	36	30	83	80	92	80	78	84	93	77	184	172	977	836	
	1893 . . .	109	89	40	28	20	10	23	19	22	14	26	35	40	30	43	27	34	24	81	63	444	341	
	1894 . . .	215	168	87	65	18	16	19	8	10	6	47	37	40	29	52	43	62	55	129	130	679	557	
	1895 . . .	174	141	83	65	24	25	13	11	7	8	32	44	38	36	40	31	58	29	94	92	568	482	
	Average number . . .	166	122	94	76	28	24	19	13	18	14	50	47	51	44	50	47	63	47	110	114	659	548	
	Famine years.	1896 .	293	245	237	204	84	62	23	29	29	24	59	41	50	51	68	46	98	50	131	121	1,067	873
		1897 .	165	129	76	45	17	25	11	11	18	8	33	33	37	38	45	32	53	39	132	100	587	451
		1899 .	208	167	105	78	37	31	21	19	12	12	41	33	32	41	40	40	43	33	144	94	613	518
		1900 .	199	183	173	134	43	41	18	16	15	26	46	30	51	30	59	46	55	49	183	128	842	685

Statement B showing the deaths from all causes month by month according to different age, periods and sexes during the famine years 1899-00 and 1896-97 and the previous five years 1891-95 in the districts of Hissar, Rohtak and Gurgaon—continued.

AFFECTED DISTRICTS.	UNDER ONE YEAR.		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.			
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.		
MAY.																								
Hissar.	1891 . . .	204	132	278	238	50	48	26	16	11	26	47	63	62	44	62	51	85	75	187	154	1,024	847	
	1892 . . .	205	152	479	337	381	250	263	193	185	108	321	235	287	235	259	189	252	180	426	298	3,038	2,227	
	1893 . . .	208	149	218	209	52	57	36	32	25	21	39	52	37	45	60	36	60	48	122	125	857	778	
	1894 . . .	353	279	258	232	73	49	31	17	25	24	54	52	51	58	67	70	89	53	184	162	1,185	996	
	1895 . . .	370	319	418	356	75	72	39	31	13	22	51	62	43	50	38	52	61	36	143	131	1,251	1,131	
	Average number.	268	206	330	284	126	95	79	58	52	40	102	83	92	87	97	80	109	78	212	174	1,469	1,196	
	Famine years.	1896 . . .	311	282	286	277	73	73	39	35	19	25	59	79	42	40	53	53	53	42	163	151	1,098	1,057
	1897 . . .	280	256	402	312	83	81	41	43	18	33	50	67	56	45	66	52	74	43	220	180	1,290	1,112	
	1899 . . .	326	306	179	190	48	57	21	30	17	39	48	60	50	50	62	54	72	42	162	143	985	971	
	1900 . . .	535	419	949	870	326	290	150	136	128	113	212	213	216	227	246	191	237	194	558	558	3,587	3,211	
Rohtak.	1891 . . .	185	133	189	139	51	39	15	13	12	15	37	40	45	56	48	41	45	44	103	108	730	631	
	1892 . . .	241	195	385	295	347	268	270	115	171	91	378	277	297	281	277	224	233	167	319	326	2,918	2,242	
	1893 . . .	186	143	111	64	28	12	7	10	6	10	24	36	34	31	33	34	44	32	83	92	556	464	
	1894 . . .	342	244	192	159	34	35	14	21	19	19	54	55	48	47	65	52	80	59	172	169	1,020	860	
	1895 . . .	415	301	261	229	56	36	17	7	13	9	46	38	31	34	38	39	49	41	101	90	1,027	824	
	Average number.	274	203	228	177	103	78	65	33	44	29	108	89	91	90	92	79	90	69	156	157	1,250	1,004	
	Famine years.	1896 . . .	293	234	279	248	77	66	26	16	19	43	45	36	35	51	41	70	32	125	95	1,019	830	
	1897 . . .	200	173	121	107	18	18	12	12	6	12	36	32	29	27	33	31	43	35	116	87	614	534	
	1899 . . .	300	249	178	171	53	49	13	22	19	14	57	44	42	65	50	47	75	57	115	111	902	827	
	1900 . . .	420	292	459	443	185	135	82	84	43	58	83	85	108	99	107	93	169	166	422	357	2,108	1,812	
Gurgaon.	1891 . . .	159	116	150	111	17	11	8	13	24	14	21	21	83	70	159	120	176	129	37	25	825	630	
	1892 . . .	206	155	133	93	127	82	83	71	65	53	92	78	133	105	243	247	190	164	94	60	1,366	1,111	
	1893 . . .	183	131	115	113	25	31	22	17	18	20	26	40	56	35	47	49	50	38	70	71	622	545	
	1894 . . .	331	219	182	181	63	31	36	29	27	17	84	88	79	74	72	60	78	62	123	107	1,075	868	
	1895 . . .	347	261	333	307	70	73	38	30	27	15	70	80	68	54	47	40	67	48	127	109	1,194	1,047	
	Average number.	243	182	183	161	60	46	37	33	32	21	61	61	84	68	114	103	112	88	90	74	1,016	840	
	Famine years.	1896 . . .	254	279	270	258	91	96	54	39	39	26	95	85	84	62	80	44	71	43	126	95	1,195	1,027
	1897 . . .	215	206	167	172	22	18	21	11	16	8	56	45	55	46	50	46	58	48	107	94	767	694	
	1899 . . .	262	206	248	224	44	51	30	19	25	19	78	64	67	76	79	68	56	45	103	104	592	876	
	1900 . . .	298	224	256	249	62	61	33	27	31	26	90	91	80	85	86	76	93	64	166	144	1,215	1,047	
JUNE.																								
Hissar.	1891 . . .	252	175	305	265	62	52	24	30	21	16	65	47	58	68	64	54	81	47	145	137	1,077	891	
	1892 . . .	183	176	453	439	324	235	222	163	123	104	336	282	229	243	197	214	212	140	300	262	2,549	2,263	
	1893 . . .	245	203	267	249	63	66	30	20	26	27	51	53	55	50	48	37	55	33	142	100	982	828	
	1894 . . .	292	266	216	164	52	57	30	21	17	17	35	59	44	39	52	50	37	27	137	96	912	796	
	1895 . . .	378	336	309	327	65	61	31	28	21	23	50	64	39	43	26	31	42	28	118	91	1,166	942	
	Average number.	270	231	310	289	113	94	67	53	42	37	101	101	85	89	77	77	85	55	168	137	1,220	1,164	
	Famine years.	1896 . . .	355	264	233	212	75	59	36	26	22	20	55	67	59	41	57	39	69	49	205	165	1,166	942
	1897 . . .	354	312	390	300	101	72	46	35	27	34	67	71	55	39	60	47	77	51	226	195	1,403	1,216	
	1899 . . .	327	288	163	168	52	45	26	18	22	17	43	52	32	28	41	35	45	32	137	104	888	797	
	1900 . . .	416	382	736	686	308	300	205	136	103	90	291	263	263	249	293	219	267	194	728	556	3,610	3,075	

Statement B showing the deaths from all causes month by month according to different age periods and sexes during the famine years 1899-00 and 1896-97 and the previous five years 1891-95 in the districts of Hissar, Rohtak and Gurgaon—continued.

AFFECTED DISTRICTS.	UNDER ONE YEAR		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
JUNE—contd.																							
Rohtak	1891 . . .	217	163	293	219	61	55	22	9	20	15	52	41	52	47	44	39	51	40	103	87	915	715
	1892 . . .	159	137	202	165	100	106	86	41	57	30	99	113	93	114	88	91	93	52	171	145	1,156	994
	1893 . . .	236	146	166	112	29	20	10	12	6	10	30	33	23	27	37	21	26	22	93	56	656	462
	1894 . . .	302	255	214	177	35	21	24	12	19	11	31	51	30	48	46	31	48	31	117	105	926	715
	1895 . . .	392	341	333	285	52	37	21	21	19	10	30	50	38	32	32	30	49	27	132	75	1,098	908
	Average number . . .	273	208	212	192	55	48	33	19	21	15	48	58	47	54	49	43	54	34	121	94	950	765
	Famine years.	1896	319	316	244	215	61	56	25	18	13	14	45	68	47	52	54	32	54	40	130	84	995	895
	1897.	281	243	166	155	42	32	14	21	12	17	30	50	36	38	41	46	53	33	168	155	818	793
	1899.	304	291	217	194	42	33	14	9	7	16	28	35	38	41	37	41	43	39	101	89	831	791
	1900	286	267	301	246	238	178	176	157	160	142	142	135	155	155	225	206	321	272	371	349	2,374	2,167
Gurgaon	1891 . . .	215	208	130	110	48	35	23	14	16	12	22	13	63	40	155	109	173	138	27	21	872	708
	1892 . . .	271	191	160	114	138	95	109	70	72	59	116	90	158	157	263	190	173	140	104	69	1,564	1,175
	1893 . . .	252	178	164	121	32	42	30	16	14	11	39	49	61	48	50	45	52	25	55	56	719	593
	1894 . . .	283	240	186	137	53	30	25	13	21	20	58	60	60	61	65	44	55	15	61	69	890	722
	1895 . . .	329	269	304	209	57	49	22	23	20	5	50	59	55	41	52	31	47	33	72	71	1,008	801
	Average number . . .	270	217	183	138	65	50	42	29	29	21	57	51	79	70	117	84	100	76	68	58	1,015	797
	Famine years.	1896.	278	227	210	182	92	77	47	49	32	20	125	105	85	89	71	55	58	60	131	95	1,132	960
	1897	263	151	159	170	40	26	17	25	13	14	61	62	44	49	50	36	55	42	100	87	802	662
	1899.	317	240	233	181	55	40	16	14	14	21	45	46	51	61	57	42	43	40	85	75	916	765
	1900.	280	233	231	259	87	66	54	40	41	35	123	91	102	103	131	86	118	78	188	161	1,361	1,175
JULY.																							
Hissar.	1891 . . .	241	174	259	232	77	54	35	33	25	28	95	89	72	71	81	59	109	69	211	217	1,202	1,026
	1892 . . .	213	149	261	225	103	104	63	58	54	37	129	103	67	95	86	73	73	43	191	147	1,215	1,037
	1893 . . .	234	185	204	189	65	60	29	37	15	20	30	38	31	46	37	98	46	31	116	91	807	725
	1894 . . .	318	246	139	150	41	35	16	18	14	17	37	400	22	31	32	31	40	21	96	87	755	682
	1895 . . .	328	290	216	206	64	28	32	18	15	13	31	46	36	82	42	19	32	21	113	91	909	774
	Average number . . .	267	229	219	200	70	38	35	33	25	23	61	63	46	55	56	43	60	38	145	127	981	819
	Famine years.	1896.	347	308	190	206	60	44	50	20	18	27	53	55	46	36	52	30	62	38	160	106	1,018	870
	1897.	303	253	321	358	91	85	56	53	43	41	63	86	58	69	72	53	91	53	273	213	1,382	1,262
	1899.	350	313	176	178	44	49	27	27	12	18	39	41	36	35	52	32	60	22	146	91	942	809
	1900.	317	273	529	527	253	262	217	179	117	87	26	252	278	300	335	279	321	215	762	518	3,493	2,972
Rohtak	1891 . . .	260	161	195	173	52	37	11	19	10	11	52	72	55	57	46	30	50	50	119	115	792	725
	1892 . . .	139	76	70	62	29	16	10	25	21	12	30	40	30	33	33	28	43	22	82	70	487	369
	1893 . . .	203	155	145	109	32	24	20	9	13	15	34	46	22	42	35	28	36	29	85	87	625	539
	1894 . . .	304	226	161	162	47	29	21	12	9	11	31	33	3	39	24	27	35	21	92	67	758	630
	1895 . . .	313	271	186	157	24	33	12	13	15	17	33	35	31	41	58	23	38	21	106	67	819	682
	Average number . . .	232	178	152	133	37	28	15	16	11	14	36	45	34	42	39	27	40	29	97	91	696	593
	Famine years.	1896	229	199	145	149	38	33	12	5	11	10	32	31	31	31	31	26	45	31	88	62	662	568
	1897	250	223	116	93	29	20	7	5	14	15	32	39	28	24	36	30	43	27	132	9	687	566
	1899	228	186	132	125	32	21	15	7	5	9	31	35	23	39	31	40	36	33	76	71	612	519
	1900	263	218	265	223	195	153	141	127	146	115	121	122	187	187	215	220	275	277	470	95	2,231	2,067

Statement B showing the deaths from all causes month by month according to different age periods and sexes during the famine years 1899-00 and 1896-97 and the previous five years 1891-95 in the districts of Hissar, Rohtak and Gurgaon—continued.

AFFECTED DISTRICTS.	UNDER ONE YEAR.		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.

JULY—contd.

Gurgaon	1891 . . .	207	181	159	126	33	18	15	24	27	24	48	42	107	85	183	161	111	85	23	18	913	764
	1892 . . .	181	163	95	70	62	55	39	38	51	37	49	35	52	43	127	117	76	67	56	34	788	659
	1893 . . .	236	213	124	115	36	34	25	11	14	10	35	38	39	36	44	30	41	27	66	54	660	568
	1894 . . .	267	202	167	124	30	26	25	22	14	20	53	43	38	54	52	47	48	37	82	63	776	638
	1895 . . .	302	227	181	195	42	48	21	14	14	12	48	37	32	50	56	39	52	30	95	75	843	727
	Average number . . .	239	197	145	126	41	36	25	22	24	21	47	39	54	54	92	79	66	49	64	49	796	671
	Famine years.																						
	{ 1896	245	225	134	119	29	31	17	19	25	15	57	60	45	43	43	27	52	39	102	61	749	639
	{ 1897	239	197	143	143	38	23	16	18	14	18	51	41	39	54	48	24	40	36	96	66	724	620
	{ 1899	323	238	146	174	37	40	22	13	12	6	50	35	25	48	49	41	52	35	98	92	814	722
	{ 1900	260	270	233	269	195	131	87	58	67	43	148	136	136	116	155	129	126	77	260	197	1,717	1,426

AUGUST.

Hissar	1891 . . .	167	121	205	144	48	47	27	21	23	15	67	62	50	49	56	35	52	33	137	119	832	646
	1892 . . .	228	176	214	220	83	64	37	38	31	17	51	56	61	67	64	39	67	53	144	129	980	859
	1893 . . .	330	238	255	226	88	71	45	30	22	16	47	48	42	47	45	49	56	41	162	120	1,092	886
	1894 . . .	371	283	190	207	44	33	22	23	12	15	38	38	24	31	40	24	26	21	108	76	875	751
	1895 . . .	312	286	219	218	33	34	30	17	15	15	41	42	21	41	39	36	41	28	132	83	883	800
	Average number . . .	282	221	217	203	59	50	32	26	21	16	49	49	40	47	49	37	48	35	135	105	932	788
	Famine years.																						
	{ 1896	369	369	199	232	59	40	22	21	15	18	40	53	44	37	50	21	60	30	188	158	1,046	970
	{ 1897	332	294	360	385	115	97	46	56	25	28	84	97	72	77	82	57	96	59	374	315	1,586	1,465
	{ 1899	471	432	211	219	54	51	30	22	15	32	45	75	43	62	53	41	46	36	187	127	1,155	1,097
	{ 1900	333	252	380	350	153	139	89	80	56	52	136	133	127	117	166	147	192	128	610	440	2,242	1,838
Rohtak.	1891 . . .	164	136	123	98	23	17	18	9	11	9	27	46	18	32	41	19	38	24	90	54	553	444
	1892 . . .	146	126	79	60	28	25	14	8	16	10	40	41	24	41	33	35	33	31	123	71	536	449
	1893 . . .	235	193	153	147	39	24	13	8	18	12	42	34	25	37	34	32	34	19	95	89	688	595
	1894 . . .	300	215	189	166	30	42	19	16	10	9	24	41	39	42	27	30	34	16	71	93	740	670
	1895 . . .	285	305	148	122	21	25	11	11	9	14	32	34	28	27	41	32	38	24	95	64	708	658
	Average num. . .	226	195	138	119	28	27	15	10	13	11	32	39	27	36	35	30	35	23	95	74	645	563
	Famine years.																						
	{ 1896	299	275	125	148	34	29	8	13	11	11	30	40	34	32	49	31	36	25	102	73	728	677
	{ 1897	288	193	128	119	27	23	11	10	12	14	38	41	21	29	29	25	38	31	132	104	722	589
	{ 1899	549	512	324	261	57	64	33	27	12	17	29	55	46	41	41	33	67	35	178	118	1,336	1,163
	{ 1900	320	286	240	192	163	137	110	119	95	95	94	103	145	96	157	125	233	190	329	246	1,886	1,589
Gurgaon	1891 . . .	167	147	106	55	28	22	20	37	26	32	24	40	53	61	76	52	84	59	24	10	603	515
	1892 . . .	193	167	139	107	47	34	22	14	18	18	35	37	33	39	43	36	49	45	111	80	690	577
	1893 . . .	317	236	186	182	36	25	28	23	15	20	45	62	65	42	53	60	52	41	102	76	699	767
	1894 . . .	384	308	281	208	38	35	21	21	12	16	49	49	38	51	33	37	49	33	90	75	985	833
	1895 . . .	278	245	174	186	30	16	23	20	23	12	45	54	30	38	38	33	43	35	83	76	767	735
	Average number . . .	268	221	177	148	36	30	23	23	19	20	40	48	44	46	49	44	54	43	82	63	790	685
	Famine years.																						
	{ 1896	307	246	170	148	40	28	20	17	21	13	52	37	39	46	55	34	50	40	103	64	657	673
	{ 1897	297	260	205	217	47	43	17	32	11	12	37	43	38	43	52	40	41	32	130	93	875	820
	{ 1899	736	674	505	470	101	116	41	29	9	9	56	85	37	90	61	48	69	50	160	156	1,775	1,727
	{ 1900	325	271	316	294	167	108	61	41	36	21	113	107	102	122	125	91	146	75	221	181	1,552	1,311

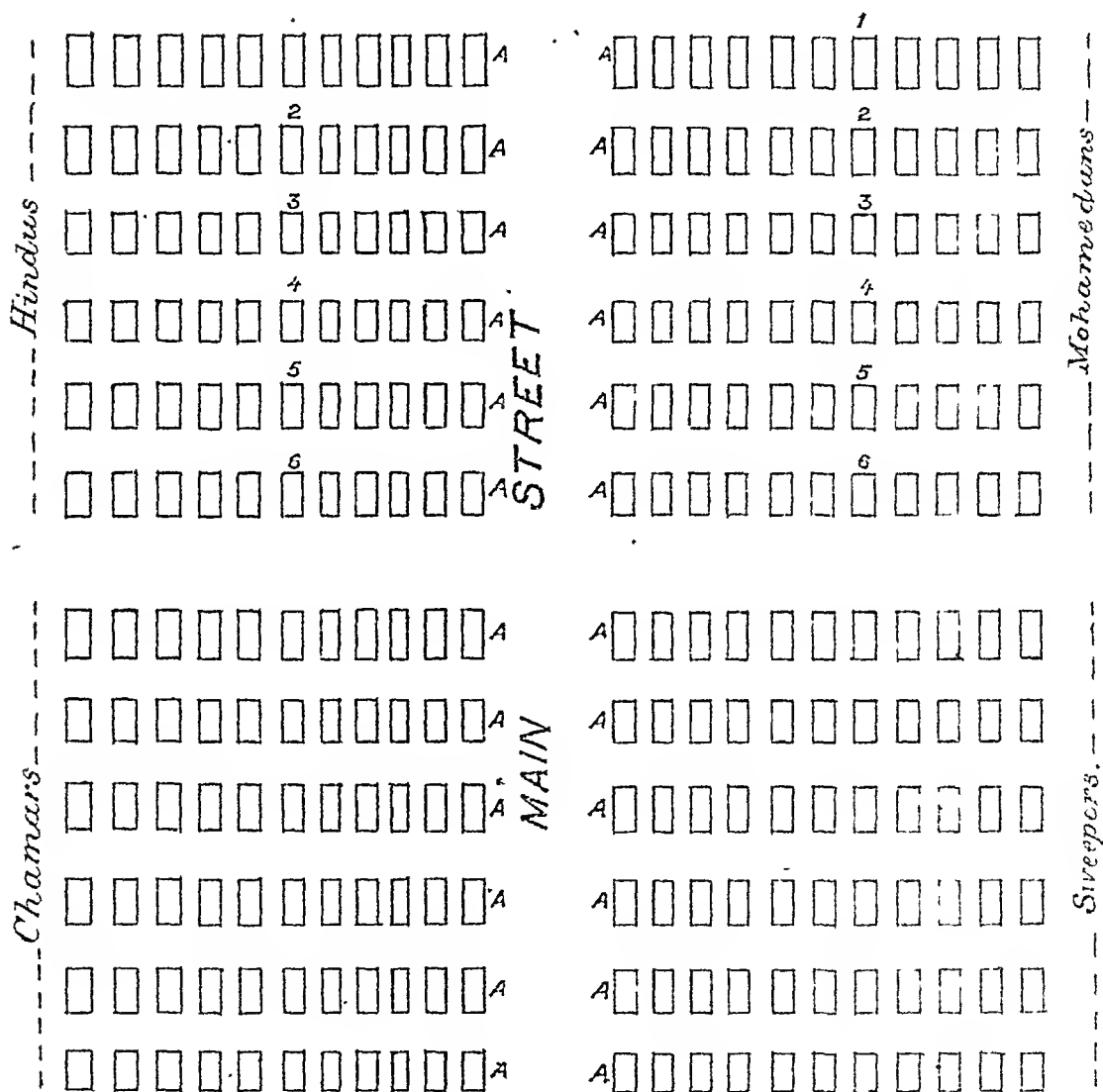
Statement B showing the deaths from all causes month by month according to different age, periods and sexes during the famine years 1899-00 and 1896-97 and the previous five years 1891-95 in the districts of Hissar, Rohtak and Gurgaon—continued.

AFFECTED DISTRICTS.		UNDER ONE YEAR.		1-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		OVER 60.		ALL AGES.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
OCTOBER—contd.																							
Rohtak.	1891 . . .	264	221	212	222	40	39	17	23	11	10	25	52	33	48	42	28	60	36	132	104	835	783
	1892 . . .	245	223	245	202	65	60	34	25	16	9	54	58	55	55	51	51	76	43	189	161	1,010	887
	1893 . . .	243	182	117	102	33	30	23	18	17	16	33	51	33	56	43	33	63	41	121	131	726	660
	1894 . . .	273	232	161	168	46	48	16	15	17	12	34	38	43	43	36	47	49	58	130	149	805	810
	1895 . . .	290	245	115	125	25	24	12	6	13	8	34	32	45	41	50	51	75	38	134	136	793	706
	Average number . . .	263	221	170	164	42	40	20	17	15	11	36	46	38	49	44	42	65	43	141	136	834	769
	Famine years.																						
	1896 . . .	245	216	131	127	13	21	13	7	11	9	27	32	28	31	40	31	54	40	133	122	695	636
	1897 . . .	425	371	363	332	75	63	59	30	40	40	39	51	22	44	35	46	66	62	238	233	1,362	1,272
	1899 . . .	211	201	103	119	28	15	16	21	19	11	33	34	42	39	57	26	46	28	138	100	693	594
1900 . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurgaon.	1891 . . .	404	337	207	131	102	107	37	71	32	57	31	59	75	70	145	107	206	125	84	66	1,323	1,130
	1892 . . .	392	419	150	149	96	83	41	55	52	70	82	79	84	106	195	195	134	133	90	93	1,316	1,383
	1893 . . .	329	245	172	120	91	74	27	28	16	34	22	49	33	48	61	78	130	131	76	83	957	890
	1894 . . .	307	315	259	262	68	46	29	20	24	17	74	91	52	73	60	69	82	61	166	148	1,121	1,102
	1895 . . .	302	234	148	170	39	30	21	19	13	12	70	78	72	80	75	65	70	75	111	127	921	890
	Average number . . .	347	310	187	166	79	68	31	39	27	38	56	71	63	75	107	103	124	105	105	103	1,128	1,079
	Famine years.																						
	1896 . . .	307	311	239	257	38	45	16	10	16	8	30	54	54	58	56	41	68	51	125	112	949	947
	1897 . . .	644	606	780	772	187	170	49	60	80	64	74	82	85	98	99	133	143	193	318	324	2,465	2,502
	1899 . . .	314	291	253	228	30	31	23	16	22	14	74	77	73	83	85	69	92	66	195	161	1,161	1,036
1900 . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NOVEMBER.																							
Hissar.	1891 . . .	128	126	156	131	53	27	20	14	26	10	27	40	48	44	61	44	66	47	124	121	709	604
	1892 . . .	370	338	652	706	176	210	88	82	49	50	103	143	115	145	122	111	158	130	320	386	2,153	2,301
	1893 . . .	349	248	142	176	37	47	33	13	15	22	52	59	59	77	59	55	72	52	181	181	929	906
	1894 . . .	211	224	113	104	30	24	14	17	5	6	43	45	36	41	44	43	53	38	149	142	698	684
	1895 . . .	321	280	170	170	37	42	28	9	13	15	70	50	39	47	44	42	62	52	176	161	960	868
	Average number . . .	276	250	247	245	67	70	37	27	22	21	59	67	59	71	66	59	82	64	190	198	1,104	1,073
	Famine years.																						
	1896 . . .	267	257	146	164	33	33	18	17	21	16	32	36	46	45	52	39	73	47	193	185	881	839
	1897 . . .	389	415	850	873	224	203	74	77	52	43	97	111	4	94	102	91	136	94	366	385	2,394	2,386
	1899 . . .	311	293	140	127	31	28	30	16	22	10	70	62	61	51	97	59	105	67	282	230	1,149	943
1900 . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rohtak.	1891 . . .	233	210	238	250	62	41	25	15	13	18	50	53	48	70	71	58	85	67	147	154	972	936
	1892 . . .	199	182	160	171	40	36	33	22	21	16	43	68	51	75	65	48	71	65	200	163	883	846
	1893 . . .	234	196	96	100	20	21	18	16	15	14	48	57	44	58	63	49	71	74	135	171	739	756
	1894 . . .	240	215	154	147	25	29	20	16	16	10	44	54	47	57	59	52	54	67	139	141	798	783
	1895 . . .	290	269	145	127	31	27	13	7	18	10	41	48	55	60	53	61	64	58	143	158	853	825
	Average number . . .	239	214	159	159	36	31	22	15	17	14	44	56	49	64	62	54	69	66	153	155	849	830
	Famine years.																						
	1896 . . .	244	228	112	93	37	29	17	13	16	8	73	55	39	38	42	33	74	42	176	130	830	669
	1897 . . .	375	346	369	367	150	127	90	77	62	57	66	54	32	44	43	36	79	71	241	229	1,507	1,408
	1899 . . .	353	285	141	133	23	24	24	12	22	14	45	41	60	61	75	51	102	41	260	228	1,105	890
1900 . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statement C showing the number of births registered by months in the famine years 1899-1900 and 1896-97, as compared with the previous five years 1891-95, in the districts of Hissar, Rohtak and Gurgaon—concluded.

Affected districts.		NUMBER OF BIRTHS IN					Average number of births in the five years.	NUMBER OF BIRTHS IN THE FAMINE YEARS OF		NUMBER OF BIRTHS IN THE FAMINE YEARS OF	
		1891.	1892.	1893.	1894.	1895.		1896.	1897.	1899.	1900.
Hissar . . . 775,808	Population of 1891										
	January . . .	1,902	2,113	2,483	3,146	3,001	2,529	2,823	2,823	3,706	2,319
	February . . .	1,653	1,559	2,179	2,426	2,692	2,102	2,503	2,073	2,974	1,845
	March . . .	1,489	1,333	2,049	2,457	2,790	2,024	2,511	1,636	2,475	1,771
	April . . .	1,314	1,162	1,742	2,292	2,339	1,730	2,072	1,293	2,294	1,400
	May . . .	1,317	1,278	1,671	2,427	2,638	1,866	2,563	1,497	2,327	1,238
	June . . .	1,391	1,429	1,557	2,785	2,758	1,982	2,598	1,920	2,567	1,299
	July . . .	1,732	2,297	2,147	3,550	3,393	2,624	3,626	2,209	3,157	1,446
	August . . .	2,365	2,662	2,861	3,571	3,644	3,021	3,627	2,505	3,816	1,507
	September . . .	2,507	3,316	3,402	3,830	3,688	3,349	2,986	2,778	4,038	1,727
	October . . .	2,689	3,100	3,897	3,788	3,977	3,490	3,389	2,738	3,668	
	November . . .	2,445	2,637	4,141	3,459	3,758	3,288	3,272	2,409	3,269	
	December . . .	2,297	2,693	4,045	3,343	3,524	3,180	3,213	2,386	3,207	
	Total . . .	23,101	25,579	32,177	37,054	38,202	31,185	35,183	26,267	37,498	
Rohtak . . . 530,446	January . . .	1,284	1,830	1,722	2,320	2,190	1,989	2,588	2,527	2,066	2,209
	February . . .	1,280	1,459	1,516	1,757	1,726	1,548	1,662	1,739	1,904	1,575
	March . . .	1,279	1,180	1,589	1,618	1,700	1,473	1,916	1,592	1,818	1,619
	April . . .	1,192	879	1,353	1,673	1,632	1,346	1,550	1,330	1,479	1,269
	May . . .	1,108	1,100	1,564	1,609	1,774	1,431	1,647	1,543	1,743	1,392
	June . . .	1,207	1,395	1,518	1,936	2,322	1,676	2,408	2,292	1,736	1,423
	July . . .	1,817	1,666	1,924	2,813	2,969	2,238	2,728	2,398	2,135	1,588
	August . . .	2,412	2,121	2,558	2,783	3,011	2,577	2,684	2,606	3,503	2,150
	September . . .	2,860	2,448	2,766	2,758	3,261	2,819	2,966	3,352	2,892	1,780
	October . . .	2,761	2,729	3,036	3,147	3,649	3,064	2,815	2,881	2,772	
	November . . .	2,613	2,284	2,916	2,599	3,100	2,702	2,567	2,993	3,406	
	December . . .	2,355	2,006	2,625	2,477	2,707	2,434	2,471	2,121	2,224	
	Total . . .	22,168	21,098	25,087	27,490	30,041	25,297	28,202	27,074	27,678	
Gurgaon . . . 668,863	January . . .	1,902	2,261	2,387	2,928	2,625	2,421	2,437	2,626	2,690	2,491
	February . . .	1,765	1,912	1,914	2,075	2,057	1,945	1,856	1,991	2,123	1,778
	March . . .	1,627	1,476	2,040	1,974	2,108	1,845	1,985	1,812	1,839	1,685
	April . . .	1,591	1,650	1,732	1,972	2,053	1,802	1,801	1,482	1,787	1,379
	May . . .	1,328	1,445	1,655	1,923	2,176	1,705	2,140	1,513	2,311	1,332
	June . . .	1,392	2,123	1,520	2,281	2,302	1,924	2,540	1,959	2,705	1,953
	July . . .	1,919	2,130	2,132	2,992	2,959	2,424	3,297	3,161	3,568	2,592
	August . . .	2,481	2,294	3,222	3,346	3,463	2,962	3,493	3,543	4,524	2,761
	September . . .	3,196	2,441	3,668	3,381	3,749	3,287	3,230	3,855	3,878	2,504
	October . . .	3,428	2,609	4,110	3,721	4,006	3,575	3,547	3,474	3,657	
	November . . .	2,921	3,749	3,933	3,020	3,877	3,502	3,354	3,181	3,595	
	December . . .	2,481	4,013	3,569	2,873	3,215	3,231	3,076	2,676	3,117	
	Total . . .	25,039	28,103	31,902	32,476	34,590	30,623	32,758	31,273	35,794	

PLAN FOR RELIEF CAMP.



The numerals denote the gangs.

A. denotes the huts of gangsmen. The first hut in each line of huts.

MR. G. C. WALKER, COMMISSIONER, DELHI DIVISION.

The President.—When did you join your present appointment?

A.—January 2nd, 1901. I was at home during the famine.

Q.—Part of our instructions are connected with the suspension and remission of revenue, and we should like to know the pressure of land revenue on the soil and its proportion of the estimated outturn.

A.—In Hissár, according to the figures of the Deputy Commissioner, the incidence is 5 annas 9 pies per acre. The gross produce I would estimate roughly to be from Rs. 6 to Rs. 8, that is taking into consideration the fluctuation of the seasons. The main crop is the *kharif*, and the principal crop *juár*. In Hissár the instalment of *kharif* revenue is six lakhs and of *rabi* 1½ lakhs.

Q.—Your incidence will come out at 5 or 6 per cent. You certainly do not overstate the gross produce?

A.—They do not have more than one good crop in two years, but when the land produces, it produces well. I must, however, repeat that I speak only from memory; if anything, I have understated the gross produce.

Q.—Is there much well irrigation in that district?

A.—There are wells, but the people will not irrigate, because it is costly and the irrigated crop is very small.

Q.—Figures for crop experiments which I have show that the yield of wheat is 6½ maunds an acre, barley 5, gram 7, rice 8.8; *juár* 3½, *bajri* 3½, and maize 11½. The average price of wheat is Rs. 15 an acre, barley Rs. 7, gram Rs. 11, rice Rs. 20, *juár* Rs. 5-11-0, *bajri* Rs. 5-14-0, maize Rs. 26. You certainly did not overstate the produce. Consequently the inference is that your assessment is no factor in the power of the district to resist famine?

A.—The assessment is from that point of view a very slight factor.

Q.—What is the incidence in Rohtak?

A.—There is a good deal of irrigation there. The incidence is about Re. 1 per acre. You might put the gross outturn at Rs. 15. That is an under-estimate if anything.

Q.—Wheat is Rs. 22, barley Rs. 15, gram Rs. 15, rice Rs. 40 (it must be very valuable table rice), *juár* Rs. 9, *bajri* Rs. 10, maize Rs. 15. In that case you come to pretty much the same incidence of 6 or 7 per cent. of the gross produce. In Gurgaon the latest figures are *bajri* Rs. 11, wheat Rs. 20, barley Rs. 15, gram Rs. 12, rice Rs. 19, oats Rs. 11, *juár* Rs. 10, maize Rs. 15?

A.—The average incidence of Gurgaon would be higher than Rohtak. It has large areas of nice light soil and well protected by *bunds*. I should almost say Rs. 18. The incidence is Re. 1-3-6, that is about 7 per cent. The difficulty is that the cultivation is very precarious, owing not so much to the scantiness of the rainfall as to its uncertainty.

Q.—In Karnál *bajri* is Rs. 5, *juár* Rs. 6 or 7, and the others are good:—wheat Rs. 17, barley Rs. 10, gram Rs. 10, rice Rs. 17. It is pretty much on a level with Hissár?

A.—Karnál is a district of all sorts of conditions. The depth of the wells varies from 10 feet to 80 feet, and there is a lot of canal irrigation, but parts of it are, I believe, hard and difficult land. But on the average I would put it higher than Gurgaon.

Q.—Then you will have your revenue very very small. The incidence is 15 annas 4 pies. That would also be about 5 per cent. And Delhi is about the same. The outturn is shown as more valuable?

A.—One part of the Delhi district to the north is more valuable than the rest. On the whole the Delhi district is more uniform. It is more steady than Karnál, certainly more so than Gurgaon.

Q.—The incidence of the revenue in Delhi is highest of all?

A.—Yes, largely with reference to the former assessment. The last settlement was earlier than in the others. The revenue is stiffer in Delhi than elsewhere. The yield is worth, I should say, Rs. 20 an acre or even more.

Q.—That is about 8 or 9 per cent. After all that is not excessive. Such being the incidence of your revenue and such the character of your cultivation, unstable in places, circumstances seem to point to elasticity in your collection, which means a regular system of suspensions and remissions in bad years. Are such matters an integral part of your system?

A.—Distinctly. Proposals are made with reference to previous bad years and the history of different villages.

Q.—If there be a failure of 10 annas of the crop, what action does the Collector take?

A.—If the Collector does not know his district thoroughly he must necessarily hold the *tahsildár* responsible for bringing to notice any requirements in respect to special villages; as soon as the papers come before the Deputy Commissioner he will depute the extra assistant to visit these villages, if possible while the crops are on the ground. That is the standing order but it can only be carried out when the drought is not on a large scale. The assistant should make his recommendations according to what he has seen. The whole, or a definite fraction of the whole, $\frac{1}{3}$, $\frac{1}{2}$ or $\frac{2}{3}$ is suspended. It is left to the Deputy Commissioner to frame his proposals and they are criticised by the Commissioner, and possibly the Financial Commissioner.

Q.—Would an 8-anna failure mean a 4-anna suspension and a 12-anna failure a 6-anna suspension?

A.—No special rule on the subject is laid down. The circumstances of each estate are considered.

Q.—Different Collectors might apply different rules to the same degree of crop failure?

A.—Yes, there is much room for discretion.

Q.—I see you take into consideration foreseen and unforeseen calamities, and foreseen seem divided into two classes: firstly applicable to the rich, and secondly applicable to the poor?

A.—This distinction has only been started since 1896 when Mr. Thorburn wrote a very vigorous note on the subject. He seems to have proceeded on an idea of imposing a higher assessment on the money-lenders than on the true *zamindárs*.

Q.—The matter is discussed in your Land Revenue Report of 1897, and judging from that discussion the rich men were indicated as money-lenders and those paying Rs. 15 and upwards per annum in revenue?

A.—That was Mr. Thorburn's attempt to draw a distinction between well-to-do *zamindárs* and those living from hand to mouth. The fifteen Rupee limit was, I believe, a concession on the part of Mr. Thorburn to remonstrances from certain Commissioners and Deputy Commissioners who said that much labour would be involved in making such a distinction. But I do not understand it at all myself. In my opinion such a test would be quite unreliable. But the idea was that the *saukar* who had taken over land fully knowing the liabilities he incurred thereby should not be let off in dry seasons, whereas the *zamindár*, who always owned the land and had to make the best of it, should be let off.

Q.—Was this division into rich and poor found to work satisfactorily? What is your own opinion?

A.—My own view is that it is a perfectly legitimate distinction. If you can get the whole village, or definite share of a village, well-to-do there is no reason why you should not ask that whole share of a village to pay up without getting suspension, which is given, not because land revenue is excessive, but because the ordinary *zamindár* is a man living from hand to mouth and he does not fulfil the promise on which our land revenue is based, that the fullness of one season compensates for the scarcity of another. Owing to the unthrifty habits of the *zamindárs*, they do not save from a full season for a lean one, and we have to take that into consideration. People who have other sources of income besides the land do not want that consideration. I myself have carried out this principle, only when I was at the same time examining myself each separate holding by the light of the crops harvested to see whether that holding could pay the land revenue instalment in whole or in part. It would be a dangerous thing to do for anyone who did not know the district and was not prepared to spend much time on it.

Q.—But the revenue is levied on the whole village community?

A.—I am afraid that in most cases the village community is broken up now altogether.

Q.—But there are in the village some well-to-do and some badly off; the question is whether you can differentiate?

A.—It is very difficult. In the interests of the *zamindár* we should only suspend when quite necessary. Much hardship may be on the poorer *zamindárs* when the time comes for collecting suspended revenue if the Collector is not very careful.

Q.—How can you avoid suspension?

A.—You must have suspensions, but it is a most difficult subject. Personally I always prefer to have the crop suspension worked out holding by holding. If you cannot do that, you must make a rough suspension of half or three-fourths and chance the rich people. I do not think I should exclude well-to-do holdings out of a village unless in the case of one such holding of a large share of the village.

Q.—Take the case of a money-lender. The feeling seems to be that the money-lender ought to be made to pay up in any case. But you have not always rich money-lenders. Some have only a capital of, say, a thousand rupees. You make them pay up. They have sub-tenants. They do not cultivate the land themselves. And if you make them pay up, they come down on the sub-tenant, and it is very hard on the latter. The only way to give him relief is to be considerate to the man above him.

A.—I do not think you ought to come down on the money-lender in that case if his tenants pay rents in cash.

Q.—Would it be better not to differentiate the money-lender from the ordinary cultivator?

A.—I should never differentiate for money-lenders, where their holdings are few and small. I should consider the circumstances when the money-lender holds a definite share of the village.

Q.—He becomes a large landlord, then. In the late famine did the question of suspension of revenue attract attention at an early period?

A.—They had very large suspensions. I am sure they were done as carefully as time allowed both in Rohtak and Hissár; the difficulty always is that the final orders granting suspension are not always able to be got out early enough. The orders should be out early enough to be acted upon when the *Bach* papers are prepared: These papers should not be drawn up until the suspension orders are received. But that requires care. I think Mr. Humphreys did do that.

Q.—In the case of a great failure would you make your suspension uniform or follow the individual, whether *zamindār* or money-lender?

A.—I should only differentiate in a tract where money-lenders hold large and well defined shares of estates receiving suspensions.

Q.—But you must suspend if you want to assist the man under the landlord?

A.—I should suspend if I thought there was any fear that the landlord would come down on his tenants, but there is fear only in the case of tenants paying cash. If the tenants pay only a share of the produce of the harvest, they cannot possibly hurt.

Q.—That fear for the tenants ought to be the determining thing. Remissions are on a different principle. You can go more leisurely to work. You would enquire in all cases carefully into the circumstances of the individual and past history of the village?

A.—I think when it came to the time for remissions I would remit what had been suspended.

Q.—Should suspension be co-extensive with remission?

A.—In the Punjab there is a rule that at the end of three years if a balance remains in suspension and you can show that efforts have been made to recover it, the Government will remit it. I should never propose remission except under this three years' system.

Q.—Would you endeavour to recover in that three years and remit the balance?

A.—Yes.

Q.—But take the case of the Hissār district. You had a total failure of the *kharif* and practically of the last *rabi*, and the cultivator had nothing wherewith to pay the revenue for 1899-1900 unless from the crops of subsequent years. You certainly will not be able to get the 1899-1900 revenue from the tenants in three years without imposing a heavy burden?

A.—Nothing like it possibly. With luck and good crops we might get all or nearly all.

Q.—Would it not be better to consider what proportion cannot be paid, and take it off at once and give the people heart?

A.—No, I would wait for the three years. The crops might turn out to be bumper ones, double, treble or quadruple the produce that was taken as the basis of assessment.

Q.—It has been stated that the policy of collecting arrears of revenue in Hissār in 1897 has been at the root of all the difficulties there since then?

A.—If that is so, it is bad revenue management. There is no reason why it should be. If out of three lakhs Rs. 84,000 were suspended, on the next *rabi* I should collect in proportion to the surplus outturn what I could, and in the next harvest, if it was nothing more than an average one, I should collect nothing, and so on. I should consider the circumstances of each village and then at the end of three years I should write off what had not been collected. There is no necessity to inflict hardship.

Q.—But you place enormous power in the hands of your subordinates in that way—the *patwāri* and *zaildārs*?

A.—But he reports to the Collector, and the Collector has the village crop statistics. I do not think you can go wrong with those before you.

Q.—You deal with them *en bloc*, but the individual man may suffer very severely?

A.—That is what a careful Collector can avoid.

Q.—I do not think you will find it possible for the majority of District Officers to go into that detail. Your Hissār district is 5,000 square miles?

A.—But you may consider that although such and such a village has got a fairly full crop, yet there are many poor people in it, and, having consideration of that, not collect.

Q.—I suppose *tahsildārs* regard it as a matter of importance to collect as much revenue as possible. So you will have him endeavouring to collect the whole outstanding balance as well as the current revenue so as to establish a claim for promotion and so on?

A.—Things do not always go as well as one could wish, but we can but do our best.

Q.—People's hearts fail if they have a heavy load of debt round their necks. They would be much more energetic cultivators if a part of it were wiped off?

A.—Not if they are re-assured.

Q.—I have been asking your own views. Can you express those held by the Government?

A.—They vary perhaps on this point. Sometimes an officer presses for remission instead of suspensions, and remissions are given sometimes, I believe outstandings are collected after the 3-year limit has passed. But we have the three-years' rule, and I think it is a good one.

Q.—I think it is an extremely good one, but whether it should be the only one is the question?

A.—Of course cultivators themselves are against suspension, because of the load hanging over them. If they were consulted they would usually say remission or nothing, but they are bad judges in this case.

Mr. Nicholson.—How is the rule as to a certain assessment—a hundred rupees, say—on a particular *zamindār* brought into practice? Do you approve of it?

A.—It does not seem a sound rule, because a man with Rs. 100 to pay if he happened not to be in good circumstances would be harder hit than a man paying Re. 1. I do not approve of the principle; I have already stated that it is not a rule in the proper sense, nor do I think Government ever gave their approval to the suggestion which emanated from Mr. Thorburn.

MR. BOSWORTH-SMITH, ASSISTANT COMMISSIONER, IN CHARGE OF THE JHELMUM WORKS; ALSO IN THE PANCH MAHALS AT THE LATTER END OF THE FAMINE.

The President.—When were you in the Panch Mahals?

A.—In July last year, and I stayed till the middle of November. I was in Hissár in May 1899 and left with some famine labourers about the middle of October and I stayed away till the middle of January.

Q.—How many people did you take to Shahpur?

A.—Ten thousand; at first we could get no one to go, and took any one we could. The original proposal was for 50,000. We only selected by taking a certain proportion of men, women and children. There was no regulation as to the number of dependants. They would not move without their women and children. I should put the dependants at 3,500—perhaps that is rather high.

Q.—Were they happy enough when they got there?

A.—There was a severe outbreak of cholera directly they arrived; 1,000 died, approximately, but after that they were very happy indeed and returned with large savings. Some wanted to stay, but they were not encouraged to do that. The scheme was a success. The cholera came, I believe, from Hardwár; two people died of it in the train on the way up.

Q.—They were engaged on canal excavation?

A.—Yes. They were in small camps. The water of the district is very salty and the new comers suffered from diarrhœa. And we had a difficulty with regard to food. Shops were some times 20 miles away and we had to get *banias* out.

Q.—As to the Panch Mahals, what struck you there in regard to the administration as compared with up here?

A.—The gratuitous relief, before I went, was not on a large scale; the people seemed in a low condition. The gratuitous relief was small but in accordance with the Code, which I thought interfered with the distribution of gratuitous relief: 90 per cent. would hardly come under section 57. A collector of course would go more or less on his own responsibility, but the danger is that the *mamlatdárs* would wrongly interpret it, as they undoubtedly did in the early part of the famine.

Q.—What was the broader interpretation due to?

A.—There had been some question about the death-rate and people stuck to their villages.

Q.—Would village works have been possible?

A.—Extremely difficult in the Panch Mahals.

Q.—Did anything else strike you?

A.—The medical staff was painfully small. In one work there was no hospital assistant and he could not be got. It would be a good thing to have a subordinate European Civil officer for every work of 3,000. The people, I found, did practically no work. They got the minimum and it seemed plenty for their sustenance.

Q.—As to the Jhelum work how many returned?

A.—Certainly 3,000 or 4,000 returned by rail. Some came by walking. When they came back many expressed a willingness to return. Of course they get high wages.

MR. R. SYKES, DIRECTOR OF LAND RECORDS AND AGRICULTURE, PUNJAB.

The President.—How long have you been Director?

A.—Since October 1899.

Q.—What is your opinion regarding the question of suspensions and remissions, not in the case of calamities like the famine, but in ordinary years of substantial crop failure?

A.—In an ordinary year I should accept the principle of differentiation, as far as money-lenders are concerned, and I should only suspend revenue if people expressed a desire that it should be done.

Q.—Would you differentiate between the classes of money-lenders?

A.—I should have lists made out beforehand.

Q.—And then you would distinguish between the rich and the poor?

A.—Yes.

Q.—You have heard what Mr. Walker said about the difficulties of working that out?

A.—I don't think they would be insurmountable. I would differentiate in the case of a small famine only.

Q.—In the case of a small *bania* having a capital of Rs. 500 or Rs. 1,000 in the case of minor crop failures, would you differentiate?

A.—Yes; I think I should.

Q.—In the case of remissions what would you do, would you be disposed to remit or not to remit until three years were over?

A.—In the case of a large famine I think you should remit at once.

Q.—In the case of minor vicissitudes, if a man was really hard up, would you hang on in the hope of being able to recover on the chance of a good crop coming?

A.—The rule in the Punjab is to call for a report every harvest as to the amount of suspended revenue that should be collected. One would then discriminate between those who could never pay and those who might be able to pay.

Q.—In regard to the question of land revenue, are you generally of the same view as Mr. Walker? The general effect of what he said was that in the Delhi division, with the exception of the Delhi district the incidence of revenue was 5 to 6 per cent. of the gross produce; in the case of the Delhi district, it went to 8 or 9. Generally, he was of the opinion that the incidence of land revenue does not press severely on the people and that it was not a substantial factor in their power or failure to resist famine?

A.—I agree with that view.

MR. LAJPAT RAI, PLEADER, LAHORE.

Mr. Nicholson.—You are the Honorary Secretary of the Orphanage in Ferozepore ?

A.—I am connected with other orphanages as well.

Q.—Are they connected with the Arya Samaj ?

A.—Some are. I am connected with Hindu orphanages, whether they are connected with the Arya Samaj or not.

Q.—How many orphans are there at present ?

A.—About 1,000; the exact numbers are given in the report.

Q.—Did you collect them during the famine of 1897-98 ?

A.—In the famine of 1897-98 there were 200 collected and in this famine 1,680.

Q.—Now there are about 1,000. What has become of the remaining 880 ?

A.—Some of them were made over to the orphanages in the North-Western Provinces, some died, some ran away.

Q.—What is the age of the orphans ?

A.—Generally above three and less than 16.

Q.—Are the bulk over ten years of age ?

A.—Yes.

Q.—I understand they are engaged in industrial pursuits ?

A.—Yes.

Q.—And able to earn their own living ?

A.—Yes.

Q.—You are employing them in weaving carpets ?

A.—Yes.

Q.—What capital do you start them upon ?

A.—In Amritsar no capital is required; we employ them in the factories of other people; some of them are able to earn Rs. 8 and Rs. 10 a month.

Q.—What about the girls ?

A.—At present they are doing lace work; some are employed on hosiery work.

Q.—Have you female supervision ?

A.—Yes.

Q.—Are any of a marriageable age ?

A.—Yes.

Q.—What do you propose to do with them ?

A.—We give notice and dispose of them.

Q.—How are they supported ?

A.—The numbers have increased only lately. We managed before to meet the expenditure from private subscriptions and unfunded capital.

Q.—From what provinces have they come ?

A.—From the Hissar district, some from the Central Provinces and a considerable number from Rájputána.

Q.—How did you get them ?

A.—We sent out emissaries and collected them.

Q.—Did you collect them from houses ?

A.—From villages near the famine works.

Q.—Were they children at work ?

A.—Purely waifs and strays.

Q.—Your suggestion seems to be that no waifs and strays should be collected by non-official agency, and that they should not be taken from their Provinces, but this seems to have been done in your own case ?

A.—As other people acted contrary to my suggestion, so we did too.

Q.—Still, I think it is your opinion that it is not advisable to remove orphans from their own Provinces ?

A.—Yes; that should be the general rule.

Q.—There should be another condition: that a complete register should be kept up showing where the children were obtained from and where they were taken to ?

A.—Yes.

Q.—Have you such registers ?

A.—Yes, we have; but they may not be complete.

Q.—But you know where the children came from ?

A.—Yes.

Q.—You have made a complaint that you made applications to the authorities in the Panjáb and they didn't answer your applications ?

A.—Yes; except that made to the Panjáb Government.

Q.—Were you able to get many children from the Panjáb authorities ?

A.—No.

Q.—Are you sure of your facts regarding missionaries taking children away ?

A.—My authority is Lala Chuni Mal, pleader.

Q.—Is it your meaning that, during the currency of a famine, children should be kept under the care of Government and only distributed to certain institutions at the close of the famine?

A.—Yes.

Q.—In future you would be restrained from taking children from Government care except under certain conditions?

A.—Yes.

Q.—Would you accept the condition that, should a claimant appear, you would give up the child?

A.—Yes.

Q.—With regard to the suggestions you make (1) and (2) in your written evidence, the North-Western Provinces Code (shown to witness) would probably suit your idea?

A.—Yes; this would in regard to one particular clause.

Q.—You have also dealt with one or two other points, that of employing non-official agency on a larger scale in a future emergency. Is there any scope for this in the case of villages?

A.—Yes; both in villages and towns.

Q.—Was it not tried in the various towns in the Panjáb?

A.—Not considerably.

Q.—You think it might have been more developed?

A.—Major Dunlop Smith in the last famine employed it largely, but this year it was not done.

Q.—Do you think it would be possible to employ non-official agency either in gratuitous relief or in supervising small village works? Have you the people there?

A.—Not in the small villages themselves, but there are a number of people in the headquarters of the district who know it well and would be forthcoming.

Q.—Do they know the condition of the village sufficiently?

A.—Yes; some of them belong to the villages and only reside in the town.

Q.—Are they available to any extent?

A.—Yes.

Q.—And would they act gratuitously?

A.—Yes.

Q.—If village works are to be developed it would be by the aid of private agency?

A.—Yes.

Q.—And that would prevent immorality?

A.—Yes.

Q.—Have you any information regarding immorality on large works; you have a serious allegation on the subject here. The agents of the Ferozepore orphanage received 62 married girls; were these girls brought away?

A.—Yes; we are now going to send agents in search of their husbands.

Q.—On what information did your agents act?

A.—They brought the girls from Rájputána.

The President.—Did they take away grown girls from relief works?

A.—Not exactly: it was done at their own request. My information is that they were being actually sold.

Mr. Nicholson.—The orphanage proposes to make enquiries with a view to seeing if their husbands are alive?

A.—Yes; the girls were taken away simply because the idea was that if we were not to protect them they would be taken away by others.

Q.—Are there no agencies which would have looked after them?

A.—My instructions are that there are only one or two agencies in Rájputána where provision is made for boys only, not for girls.

Q.—Were these people from Native States?

A.—Yes.

The President.—Were they from Native States or Ajmer-Merwara?

A.—Mostly from Native States.

Mr. Nicholson.—Have you organized general rescue agencies for bringing all sorts of people from all sorts of districts?

A.—No; not that.

Q.—Are you sure that they have no lawful guardians?

A.—That was their own assertion.

Q.—Were there relief works going on at the place?

A.—There may have been in the neighbourhood.

Q.—Why didn't they take them to the officers in charge?

A.—The impression was that anybody could get hold of a woman and take her off.

Q.—Instead of bringing them 100 miles away, why were they not taken to the Magistrate? Why were they taken out of the jurisdiction of Rájputána?

A.—I have no answer to make, except that others were doing the same thing.

The President.—How do you know that?

A.—It was seen.

Q.—Was any complaint made to the Police?

A.—No.

Mr. Nicholson.—Where did the girls come from?

A.—From the following places. (Witness read a list.)

Q.—I suppose you have reports and proceedings of each girl as to where she can be found?

A.—Not of each girl separately. Our agents want to certain places and collected the waifs and strays, and we then collected details.

The President.—Did they rail them to you?

A.—Yes; to Lahore.

Q.—From Central India they were taken to Lahore?

A.—Yes.

Q.—Your object being to get them to their husbands?

A.—Yes.

Q.—Why didn't you take them to the Magistrate and point out that a large number were being removed to other provinces?

A.—There was a printed appeal by a missionary lady in which she pointed out this evil.

Q.—Did you make an application to the authorities that these abductions were going on?

A.—No; it is with this object we have brought it to your notice.

Mr. Nicholson.—Why didn't your agents go straight to the Magistrates?

A.—Perhaps they were not sufficiently bold or intelligent.

The President.—If these women have husbands or guardians, there was great risk in bringing them away?

A.—We are prepared to give them back.

Q.—If there was a Government orphanage at Ajmer, would your agents have still taken the people away?

A.—We would have placed them at the disposal of that Government orphanage. There are orphanages managed by the agencies where no one has any admittance.

Mr. Nicholson.—Are you aware that agencies in Rájputána collected 7,000 orphans? ✓

A.—Yes; and some were sent to distant places.

Q.—Then they did what you did; they sent them to another Province?

A.—Yes; and that is what we wanted to stop.

The President.—Where do you get your funds from?

A.—Private subscriptions.

Q.—Do you collect all over India?

A.—Only from the Panjáb.

Q.—What is the name of the Association?

A.—The chief Association is the Arya Samaj, Ferozepore.

Q.—You have a branch in Baroilly?

A.—Yes.

Mr. Nicholson.—Were the agents you sent out young men, or elderly men, or what?

A.—Young men belonging to the college.

Q.—And they were responsible for the collection of orphans, &c.?

A.—Yes.

Q.—And for obtaining all the information on which you acted?

A.—Yes.

Q.—Are they men of 20?

A.—Perhaps more than that.

The President.—Do they receive salaries?

A.—No; nothing except some small travelling expenses.

Mr. Nicholson.—Are your agents under control?

A.—Yes.

Q.—Do you hope to make your institution self-supporting?

A.—Yes; we are trying to make a carpet factory.

Q.—It is mentioned in the newspapers that it is proposed to open a joint stock company?

A.—Yes.

Q.—For that purpose?

A.—Rupees ten thousand has been collected for the orphanage and it is proposed to collect Rs. 10,000 more.

Q.—And do you mean that that should be kept there under conditions which Government might like to impose for the benefit of the orphans themselves?

A.—Yes.

Q.—Conditions to be imposed on the orphans?

A.—No; on the employers.

The President.—You say you have married some of the girls off; what class of people have they married?

A.—They were married to superior castes before; this year only two or three marriages have taken place. In one case a Central Provinces boy has married a girl of the same caste, and they are making a decent livelihood.

Q.—Do you give any dowry with these girls?

A.—No.

Q.—Don't you anticipate some difficulty in getting rid of a number of girls?

A.—We married them to people who were able to look after them.

Q.—Will the supply be up to the demand?

A.—The number of unmarried men is larger than the supply of girls.

✓ Q.—Has the man to pay the dowry or the woman?

A.—In the case of low castes the man has to pay something for his wife.

Q.—You don't anticipate any difficulty in the matter?

A.—No.

✓ *Mr. Nicholson.*—Is there any difficulty about castes?

A.—No, not in the Panjáb.

✓ Q.—Will they all become Arya Samajists?

A.—No.

Q.—If you take a child of three or four from a poorhouse, you don't know its caste?

A.—We generally get young children from Government, and information is supplied about the caste.

Q.—But if you don't know the caste?

A.—They are kept separate.

Nawab Muhammad Afzal Khan, Khan Bahadur.

Answers of Nawab Muhammad Afzal Khan, Khan Bahadur, Deputy Commissioner, Gurgaon, to the Questions of the Indian Famine Commission, 1901.

Introductory.

1. (a). Seldom, if ever, has a rainy season opened so propitiously for the agriculturist as that of 1899. The rains set in at the proper time, *viz*, in the second week of June, and throughout the months of June and July every tahsil in the district received ample showers. Prospects were very favourable up to the early part of August and a good harvest was expected. Unfortunately, however, the rains became very feeble in the months of August and September everywhere, and warm west winds were unusually prevalent, with the inevitable result that the crops or rain lands withered and almost wholly perished, even those on canal and well-irrigated areas suffered to some extent. The loss was all the greater, as the excellent manner in which the season opened led cultivators to sow a far larger kharif than has been sown for many years.

(b). *Kharif 1897.*—There were only slight showers in the month of May 1897. In June there was a fair amount of rain, but after this, till 12th July, no rain fell. During the remainder of July and in August and September the rainfall was much better, but ploughings and sowings were not full owing to the indifferent rainfall of June and the absence of rain in the first fortnight of July. The season was, therefore, unfavourable for cotton, indigo, sugarcane, and *til*, but after the 12th July sowings were vigorously pushed on, and the rainfall of August and September benefited the crops. Then locusts came and damaged the standing crops everywhere, more especially in the Gurgáon Tahsil. The harvest was, however, better than that of 1895 and 1896, in which there were large failed areas, and on the whole was considered to be up to the average.

Rabi 1898.—This harvest was an improvement on the rabi of 1897, but at best was only an average one. It was another instance of a season opening well enough, but receiving a check by absence of rain or very little rain at its height and towards its close. The total area of all crops, however, was the better by 3,302 acres, while the failed area decreased by 16,702 acres; but on the whole it was not a full or a prosperous harvest, which would give cultivators a profit.

Kharif 1898.—The area sown for this harvest was slightly less than in the kharif of the previous year. The rainfall in June was not good throughout the

district, and it was only towards the close of the month that anything like good showers were received at a few places. In July also the falls were neither favourable, timely, nor well distributed, and in August and on to October they were of an irregular and scattered kind. Such conditions did not affect sowings much, which were carried out on an area only about 1 per cent. less than in the previous year, but in the area cropped the difference was pronounced, being 14 per cent. less. In addition a destructive west wind blew for a time which withered to some extent the maturing crops, and the area which failed was 122,328 acres as against 33,790 in the kharif of 1897. Even on canal-irrigated areas the area, cropped fell off by 10 per cent., and the crops chiefly affected were indigo and cotton; the decrease in the former being 55 per cent. and the latter 20 per cent. On irrigated lands the cropped area was less by 14 per cent. *Jowar* especially lost in yield to the extent of 13 per cent. on irrigated and 32 per cent. on unirrigated areas. The outturn on irrigated areas was average and on unirrigated indifferent to poor.

Rabi 1899.—The rainfall of August and September was in large defect, and the area sown decreased by 14 per cent. Of the total area of 326,377 acres sown, 252,266 acres bore crops, 74,056 acres having been returned as *kharāba*. The area of crops which failed was 47 per cent. greater than in 1897, and was due entirely to the failure of the winter rains. All the principal crops, *viz.*, wheat, barley and gram, showed large decreases, but in the case of gram the difference was very pronounced, the area having fallen from 106,923 to 49,928 acres. The yield on irrigated lands was 14 annas, and on unirrigated only 6 annas.

2. (a). The kharif sowings were above normal.

(b). The normal cultivated area has been arrived at by taking into consideration the area generally sown each year during the last ten years.

3. (a). The average rainfall of this district during the rainy season is as below :—

	Inches.
Gurgāou Tahsil	22.84
Rewāri „	19.61
Palwal „	21.46
Núh „	22.83
Firozpur „	21.88

(b). The actual rainfall during the rainy season of 1899 and the percentage of the average it represented was as below :—

	Actual rainfall, Inches.	Percentage of average rainfall
Gurgāon Tahsil	11.87	49.3
Rewāri	8.38	43.7
Palwal	18.57	86.6
Núh	9.70	42.9
Firozpur	15.07	73.4

(c). The rains ceased on 15th September 1899.

(d). The distribution of rainfall from June to September as compared with the average was as below:—

NAME OF MONTH.	GURGAON.		REWARI.		PALWAL.		NUH.		FEROZPUR.	
	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.
June . . .	3'51	2'59	5'17	2'20	12'01	1'52	4'83	2'80	7'54	1'75
July . . .	4'59	8'27	2'00	7'20	4'83	9'05	2'43	8'30	5'43	7'54
August . . .	2'55	6'61	0'78	6'57	1'47	0'42	1'83	6'64	1'05	7'83
September . . .	1'22	4'81	0'43	3'34	0'16	4'47	0'51	4'40	1'00	4'74
Total . . .	11'87	22'61	8'38	10'81	18'57	21'46	9'70	23'83	15'07	21'88

4. The actual kharif harvest of 1899 represented 36·4 per cent. of the normal harvest on the normal area.

5. (a). 40 per cent. and (b) 6 per cent.

Preliminary action.

6. The necessity of relief was assumed from the fact of crop failure.

7. The number of people wandering through the district. The kharif of 1899 was a failure. Previous harvests were not good. People began to leave their villages in search of work. Prices were high and such ordinary works as were open were becoming overcrowded.

8. Test works in the shape of *katcha* roads were opened and wages were given according to the Punjab Famine Code and the task was slightly raised.

9. (a). Yes.

(b). No.

10. (a). The programme contemplated large public works as the backbone of the relief system.

(b). Yes.

11. (1) Test works.

(2) Poor-houses.

(3) Kitchens on works.

12. Local inspection and control was instituted in the month of August by Tahsildars, Naib-Tahsildars, Circle Inspectors and Thanadars by keeping a watch on and occasionally touring in their respective charges.

(a) —

(b) Ordinary works were opened out to give employment to all who came on to them.

(c) Committees were organized at the headquarters of the district and headquarters of the tahsils to collect subscriptions.

(d) The officers mentioned above sent in weekly reports of the condition of the people to the Deputy Commissioner, who also maintained a diary. Civil Surgeon observed physical condition of the people

by touring throughout the district on vaccination and sanitary inspections. He also had reports sent to him weekly from all branch dispensaries in the district pertaining to such diseases as could be attributed to insufficient and unsuitable food.

13. (a). Yes.

(b). Rs. 12,488 under Agriculturists Loan Act, under the usual conditions of interest and recovery to land-owning classes for purchase of seed.

(c). They were to be recovered *in toto*.

14. Irrigation wells can be excavated in portions of the district where the water is not brackish. The average depth of water below the surface on the cessation of rain in 1899 was 20—60 feet in respective tahsils.

Digging of *katcha* wells was encouraged by loan and was successful—

(a) In securing the crop on the ground.

(b) No wells being *katcha*.

(c) As a temporary measure to employ labour to a little extent.

15. Labour was the first criterion, and the consolidation of Sohna-Núh Road, 6 miles, was taken in hand as an ordinary work under the District Board and was supervised by the District Engineer.

16. At start the task exacted was 150 cubic feet per digger and two carriers. It was afterwards raised to 225 cubic feet per digger and two carriers. It was then changed, in accordance with the formula contained in Addenda and Corrigenda No. 40 to Punjab Famine Code, for earth-work for stone-breaking the task set was 7 cubic feet for 18 chattáks, 5 for 13 and $3\frac{1}{2}$ for 7, but on the inspection of work and complaints by the people the Commissioner reduced it to 5 to 6 cubic feet for 18 chattáks, 3 to 4 for 13 and $2\frac{1}{2}$ for 7.

The task for earth-work was taken as below, irrespective of previous occupation:—

Digger.—In soft soil, 200 cubic feet.

In medium soil, 150 cubic feet.

In hard to stiff, 85 to 100 cubic feet.

Carrier.—According to lift and lead.

17. Payments were made in strict accordance with the outturn of work. There was a maximum wage but no minimum wage, nor rest-day allowance, nor an allowance to dependants, except that two pice were allowed to nursing mothers on test works.

18. The holding-off of the rains followed by the failure of the winter rains and the gradual and continued increase in the numbers on works led to the conversion of test into relief works.

Large Public Works.

19. Large public works were opened, *viz.*, Ghata Bund, Rewári-Phulera Railway and Delhi-Agra Chord Line.

20. (a). These works were under the control of Public Works Department.

(b). The scale of supervising establishment was prescribed in advance, but was not ready at the start-off.

(c). There was no delay in opening works, and tools and plant were available.

21. The works were divided into charges and each charge was provided for the maximum of 5,000 workers. The maximum number of workers under each charge was exceeded in one instance, *i.e.*, on the Jalusána Tank Relief Work. There was no pressure as the tank was a very large one, and could accommodate more than 5,000. The establishment, however, was proportionately increased as to gang moharrirs, water-carriers and sweepers.

22. (a). Yes.

(b). Establishment—

- 1 Civil Officer in charge.
- 1 Camp Clerk.
- 1 Assistant Camp Clerk.
- 1 Camp Jamadár.
- 1 Conservancy Jamadár.
- 1 Water Jamadár.
- 1 Camp Moharrir.
- 1 Admission Moharrir.
- 1 Miscellaneous Moharrir.
- 1 Work Moharrirs for each 300 to 400 workers.
- 1 Cashier for every 2,500 workers.
- 1 Store-keeper.
- 1 Assistant Store-keeper.

(c). Huts to accommodate 5,000 people were erected beforehand; separate latrines for males and females on the trench system were constructed 200 yards to leeward of the camp with a complete conservancy establishment. Wells were first selected by the Civil Surgeon 15 days prior to the opening of the camp. They were cleaned out and treated with permanganate of potash and wooden covers were put on them with lock and key. A guard was also put in charge of each well. Iron tanks of 400 gallons each were provided with taps. Water was drawn by *charsa* and stored in them from which the water was conveyed in the canisters to the several *piaus* distributed along the work where the water was stored in closed wooden casks with taps under charge of a Brahman by whom water was freely distributed to labourers. Where possible these casks were fitted on to a cart and filled at the well either by hose or by water drawn from the tank. The carts then went round the works supplying water carrying two casks; one cart was allowed for every 500 people. Camp residents were allowed to take their water for cooking purposes from the taps of the tanks in the

evening. Throughout the continuance of Famine Relief Works the main object aimed at was to prevent labourers and others polluting the water-supply.

Shops on the works were provided beforehand and were stocked with various food-stuffs commonly used by the labourers. The food supplies were inspected by the Civil Surgeon before the opening of the camp and from time to time at his visits to the camp. These shops were also inspected daily by Civil Officer in charge in conjunction with the Hospital Assistant. As far as possible such articles as melons, cucumbers, etc., were prohibited from being brought to the camps.

(e). Hospital huts were erected and the Civil Surgeon deputed Hospital Assistant with the necessary establishment and other requirements to suit camp of 5,000 people. The Civil Surgeon visited the camps regularly.

23. Admission to works was free to all comers. A distance test was introduced, and consisted of 15 per cent. more work being given to those living within a radius of $2\frac{1}{2}$ miles. Those coming from beyond this radius had the usual task.

24. The large public works capable of entertaining two charges of 5,000 persons each is able to serve an area of about 280 square miles and a population of 160,000 souls. Applicants for relief came from an average distance of about 8 to 9 miles.

25. The Public Works Department Officers were not subordinate in all matters to Civil authorities. The Executive Engineer and Sub-Divisional Officers took orders from the Commissioner and Deputy Commissioner regarding scale of wages, tasks and opening out of works and appointment of Civil Officers in charge of works, but the Civil Officers in charge of camps were under Public Works Department.

26. (a). Yes. He was taken generally from amongst selected Káuúngos and was allowed Rs50 per mensem, and in some special cases for good work an extra allowance was made. He was entirely subordinate to Public Works Department local representatives.

(b). Yes.

27. Tasks were prescribed for the different soils, sand, medium and hard, and the Civil Officers, along with the Local Public Works Department Officers, could only alter the tasks if they were assured that the labourers could not or would not fulfil their prescribed tasks in the different soils. These were checked from time to time by the Sub-Divisional Officer and the supervising establishment.

28. The people of each village were allowed to make up their gangs in family and caste parties: each gang consisted of from 50 to 80 labourers under a mate, selected from among the number. These arrangements worked satisfactorily.

29. The classification of labourers was— (i) diggers, (ii) carriers, (iii) working children, (iv) light work gang, and (v) non-working children. The only difference between this classification and that of paragraph 445 of the Report of the Famine Commission for 1898 is in class (iv). Gratuitous relief not being necessary and being substituted by light work. This is from the point of view of economy.

30. (a). Experience led to the consideration that a distinction should be drawn in classification and wages of men and women. The distinction was that when a woman did two-thirds of a man's task as a digger, she earned the digger's full wage, but this was altered by Addenda and Corrigenda No. 43 to the Punjab Famine Code to half the task of a digger, and she received the carrier's wage.

(b). This system reduced the expenditure but led to numerous complaints, as there were numbers of women on the works who were quite capable of fulfilling the digger's task, but they were debarred to do so according to the above Circulars.

31. (a). The Code system of task was adopted from the outset, but later on a system of payment by results was adopted.

(b). No.

32. Yes, especially at Narnaul, where the condition of the people seeking work was below par and necessitated every allowance being made for their condition.

33. (a). The task exacted at the outset was that laid down in the Punjab Famine Code, *i.e.*, 225 cubic feet, but was modified in accordance with the Addenda and Corrigenda to the Punjab Famine Code, Appendix B. Full task was demanded from all except those found to be in weakly condition, who were put into light gangs and given such task as suited their physical condition. No allowance was made for distance, and those coming from within a radius of about three miles had to do 15 per cent. more than those coming beyond that distance.

(b). No.

34. (a). The scale of wages was found to be adequate.

(b). It was found that the condition of people who came on to the works greatly improved after their being a short time on works.

(c). From enquiries and experience it was evident that those on the limited piece-work system could not save anything out of their earnings, but on the unlimited piece-work system the professional labourers were able to save somewhat.

(d). Copper coins did return freely to camp baniás, as Civil Officers in charge of works had occasion from time to time to exchange their silver for copper coins at the baniás so as to distribute wages.

35. On the limited piece-work system (famine work) those who lived in camp were given rest-day wage (minimum wage). It is necessary on test work. It was not given at first and the people had to subsist on the six days' earnings, and on the seventh day they had very little to subsist on, hence even on test-works the rest-day wage is essential.

36. Yes, on the task work system the fines for short work should certainly be lowered down to the penal wage, otherwise the test fails to accomplish what it is supposed to do.

37. (a). At the outset minimum wage was tried, but it was found that it had a tendency to induce number of labourers to do short work. Consequently the system was changed and the people were fined for short work, which went even lower than the penal wage. This had the desired effect of inducing the people to give better results.

(b). No.

38. Payments were made bi-weekly on all the works except on Rewári-Phulera Railway, where they were made daily. Bi-weekly payments worked satisfactorily. The reason for paying daily only on one work was on account of there being a large number of workers from Native States to whom leniency was desirable.

39. The new comers on works were not paid daily, but bi-weekly on all works except Rewári-Phulera Railway, but they should be paid daily for the first two weeks as numbers came on to the works without so much as would purchase them a meal; where there was any difficulty for the workers to obtain grain a system of giving vouchers to them for the actual amount due for the work done was tried. By presenting these vouchers to the camp baniá they received what they wanted.

40. Payments were made to the individuals and heads of families. Both systems worked well.

42. The system adopted in the Gurgáon Sub-Division may be considered a limited piece-work system in which the task was fixed, and the payment was made by results.

43. The maximum wages were the equivalents in money of 18, 13 and 7 chattaís per digger, carrier and working child, respectively, of the cheapest grain selling at the time. Children were fed at the camp kitchens. Weakly people who were unable to fulfil the full task were put into separate gangs and a suitable task was given to them for which they received the maximum wage. This was a system of piece-work at favourable rate and is preferable to task work with a minimum wage.

44. No.

45. Yes. Muster rolls were kept up.

46. (a). The scale of prices was changed from time to time on receipt of a *nirkhnáma* from the Tahsildar.

307

(b). It was mainly based on *bejhar*, which is a mixture of barley and gram. Fractions of pies in calculations were neglected.

47. Information was first given to villages within a radius of about 10 miles of the selected site that a relief work was to be opened; on the people arriving at the camp they were gathered together in the enclosure set aside for classifying them into gangs and divided them into village parties. They were then made up into gangs of 50 and allowed to select their own mate. Each gang consisted of 17 diggers and 34 carriers. The classification was carried out by the Civil Officer and Admission Moharrir. On forming up the gangs their dependents were mustered behind them and children under 7 were fed from the camp kitchen in an enclosure.

Tools and Plant.—A store was opened out which was stocked with *pharwas*, baskets, pickaxes and all the necessary requirements for a camp of 5,000 workers. As the gangs were completed they received a voucher from the Admission Moharrir showing the number of the gang and the number of tools to be issued out by the Store-keeper. Each gang had a separate square in the store for stacking their tools after the day's work was done. Three days' work was always marked out in advance and measured up each evening as the gangs completed their work. Labourers were paid their wages every third day on all works except at Rewári-Phulera Railway, where they were paid daily, and for special work, see reply to question 38. Fines were inflicted for contumacy and short work. On the site being selected for a camp in conjunction with the Civil Surgeon and his approval of the wells they were cleaned, disinfected, treated with permanganate of potash every third day for 15 days before the occupation of the camp. The wells were covered with a wooden lid, which was locked. A *chaukidar* was put on to prevent any one drawing water with the exception of those entertained for the purpose. On most works there were iron tanks into which the water used to flow. From this tank the water was taken by the tin canisters and stored in wooden casks provided with locks and taps which were placed at drinking stations (*piaus*) at suitable distances apart along the work. Such casks were also supplied and placed at a convenient place in the camp. These casks were scoured out every other day with a solution of permanganate of potash. Huts for hospital were erected in accordance with the Civil Surgeon's design. All arrangements regarding hospital equipment were left with the Civil Surgeon, who in all cases provided for all medical requirements.

48. (a). The task or wages were stiffened or relaxed under orders of the Commissioner.

(b). Yes; but most of the orders were issued by the Commissioner to the Deputy Commissioner, who communicated the same to the Public Works Department Officers.

(c). Action, if any, taken in anticipation of sanction was never overruled.

50 to 57. *Nil*.

No small village works were opened in the district.

58 (a). Yes. Mainly Meos, Ahris, Jats, Gujars, Rájputs, Ranghars and Khanzádas.

(b). No.

(c). They came on to relief works when the famine became severe.

60. No.

61. No.

62. The weaving class readily came on to relief works.

63. No.

64. Fodder advances to the extent of R 9,000 were given in March in the Rewári Tahsil, which was the worst off in the district. They were means of saving many cattle and of securing the spring crops, besides permission was granted, when fodder was not obtainable at all or very expensive, to lop roadside trees and trees along the canal banks belonging to the District Board or the Canal Department. A truck load of hay was imported through the Deputy Conservator of Forests, Koladwára Division, to Rewári, where fodder was scarce and dearest, but there was nobody to buy it. In the long run it was sold off to the highest bidder at a sacrifice.

Gratuitous relief.

66. (a). Dependants being on large works and those coming from villages with workers were fed twice a day at set hours at the camp kitchens with cooked food.

(b). *Nil*.

67. Gratuitous relief in villages was the system adopted here. It was given once a week through Circle Inspectors and was adopted as being the simplest method.

68. No.

69. (a). Two poor-houses were opened in the district, one at the head-quarters of the district and the other at Rewári. The former was opened on the 13th and the latter on the 15th January 1900.

(b). Chiefly menials, a large percentage of whom belonged to surrounding Natives States. The numbers were large at both poor-houses, especially in July.

70. Yes.

71. From time to time the inmates as fit were sorted out and sent to the nearest relief work after examination by the Civil Surgeon or Assistant Surgeon. Some of them were sent to their villages with a slip entitling them to gratuitous relief when numbers began to mount up at the poor-houses.

72. (a). Five camp kitchens were opened before the rains broke.

(b). Nil.

(c). Camp kitchens served only the dependents of workers.

73. The minimum ration laid down in the Punjab Famine Code was allowed in the kitchens. Meals were distributed twice a day at fixed hours. Dependants were compelled to eat in the enclosures made for the purpose.

74. No.

75. On works only to dependants of workers.

76. The poor-house ration was as below—

Adults—

	<i>Chs.</i>
Flour (wheat up to May and afterwards <i>bejhar</i> ; at Gurgáon and at Rewári <i>bejhar</i> all along).	7½
Dál	1
Ghi or oil	¼
Vegetables and condiments	¼

Children 7 to 12 years—

Flour (wheat up to May 1900 and afterwards <i>bejhár</i> ; at Gurgaon and at Rewári <i>bejhár</i> all along.)	4½
Dál	¾
Ghi or oil	¾
Vegetables and condiments	¾

Children below 7 years—

Wheat flour (up to May 1900 and afterwards <i>bejhár</i> ; and at Rewári <i>bejhár</i> all along.)	3½
Dál	¾
Ghi or oil	¾
Salt	¾
Vegetables and condiments	¾

The food was varied to meet the cases of sickness and weakness. Those requiring extra or special diet were given it at regular hours.

77. Gratuitous relief lists were drawn up by the Circle Inspectors and checked by the Tahsildars. Recipients were inspected once a week by Circle Inspectors at time of distribution of allowance.

78. (a). In cash.

(b). Weekly.

(c). At homes of recipients.

79. None.

80. (a). Brahmans were employed as cooks.

(b). No reluctance was ever shown by people to take food cooked by them.

81. Each camp kitchen had a Superintendent, who was responsible that the correct number of rations was indented for daily. This indent was submitted to the Officer in charge, who gave orders for supplies accordingly. The raw material was weighed and when cooked it was inspected by the Civil Officer in charge of the camp. The food was also inspected by the Medical Officer in charge of

the camp. The Civil Surgeon, who visited the camps from time to time, inspected and tested the food and its weight. The Public Works Department Officers used to almost daily inspect and test the food.

82. No.

83. No.

84. (a). The following suspensions were granted :—

		. R
Kharif 1899	.	2,71,452 in all tahsils.
Rabi 1900	.	2,93,245 „

(b). Nothing.

85. The local officials visited all tracts in which the failure of crops occurred; and according to the outturn in each tract, *i. e.*, 8 annas, 6 annas, etc., the amount to be suspended was determined. The capacity of the individual to pay was duly taken into account. Zemindárs paying R100 or more land revenue were not allowed suspensions. In the case of some paying less than R100 who were in good circumstances and mortgagees were also excluded from the grant of suspensions. The Tahsildars and Revenue Assistant, and finally the Deputy Commissioner, decided as regards granting suspensions.

86. Suspensions were determined some time before collection of revenue began.

87. Yes. There was only one village in which part of the revenue was suspended. The officer deciding what person should receive suspensions was the Revenue Assistant through Tahsildars.

88. No.

GENERAL.

89. No.

90. No.

91. As far as the district is concerned, people in receipt of relief were menials belonging to neighbouring classes, with a small percentage of cultivators. There were also a large number of emigrants from surrounding Native States.

92. Yes, because the famine was very much severer than any of the previous ones, and affected a large portion of the district area.

93. Yes. The people had exhausted their resources before accepting State relief.

94. Yes.

95. Test works with a good task are sufficient to keep people off works who can otherwise subsist without coming on to work, but a system might be adopted by which it may be known what people would most likely require relief. On the first appearance of scarcity, lists should be prepared showing (1) zamindárs able to tide over famine for a year, (2) for six months, (3) for three months, (4) for kamíns, and (5) for old and infirm. These lists might be kept up by the patwári, and the

lambardárs should be held responsible for their correctness. These should be revised every six months. The Tahsildar and Revenue Extra-Assistant Commissioner should at their inspection of the village see that these lists are properly kept up.

96. The registers of births and deaths of rural circles are kept by Police, and those of municipal towns by the Municipal Committees.

97. For a time mortality of the district was above normal; which is certainly due to the occurrence of cholera in the district and fever after heavy rains.

98. There was no excessive mortality in any of the camps to disease caused by the defective or insufficient water supply: permanganate of potash was freely used to disinfect all sources of water supply twice a week; also wells within a radius of 5 miles of each were treated with potash permanganate, and it is evident that the exceptional freedom from cholera of all camps was due to the care of water supply.

99. (a). As regards sanitation of camps, instructions laid down in the Punjab Famine Code were strictly adhered to. The latrines were invariably on the trench system, and they were always situated 200 yards to leeward of the camps. There were special latrines placed near the camps for the use of people taking sick at night. There were segregation camps for contagious diseases. When cholera appeared in the vicinity of the district observation camps were opened for new comers, where they were kept for five days before being permitted to the main camp. The new comers were also allotted work a good distance apart from the old labourers. The sanitary arrangements were under the Conservancy Jamadár and supervised by the Civil Officer in charge of the camp and the Hospital Assistant. All arrangements were carefully supervised by the Sub-Divisional Officer and his assistants. The sanitary arrangements of the camp were inspected from time to time by the Civil Surgeon, and any defects noticed by him were rectified by the Sub-Divisional Officer on the spot.

(b). At poor-houses sanitary precautions were most rapidly enforced. The latrines were on the dry-earth and removal system. Their source of water supply was most carefully protected, the well being treated with permanganate of potash twice a week. On the occurrence of cholera in the district all new comers were accommodated in a small camp a fair distance from the poor-house enclosure till such time it was considered safe to allow them into the poor-house. The water for the inmates of the poor-house was boiled and filtered. The sanitary arrangements were supervised by the Superintendent of the poor-house and the Assistant Surgeon.

(c). Same as (a).

100. The grain shops were regularly inspected on the works from time to time by inspecting officers and the Civil Surgeon. The grain shops

were regularly inspected by the Hospital Assistants of famine camps as also by the Civil Surgeon at each of his visits. On one occasion unwholesome grain was found and the vendor punished. On several occasions inferior food stuffs were found, and this was brought to the notice of the Sub-Divisional Officer, who always meted out the necessary punishment.

101. The following is a list of wild products found in the district, and which were made use of by famine-stricken wanderers from Native States, to supplement such food stuffs as they would procure by begging. The use of these were no doubt the cause of many cases of dysentery and diarrhoea which very often proved fatal:—

Jharberi.	Tent.	Chaulái.	Makrá.
Sámak.	Pilú.	Leswá.	Chilmil.
Panwár.	Hulhul.	Nunki.	Nali.

102. Yes.

103. About 50 per cent.

104. At the end of the famine and closure of poor-houses, orphans, 37 in number, were accommodated at the Gurgáon poor-house, which was converted into an orphanage, 15 were made over to friends, 12 to caste people, and 10 to native institutions.

105. The gift of clothes and blankets to persons in receipt of State relief under object I (a) had occasion to be made in this district. Inmates of poor-houses and poorly clothed people on relief works came under this head, and grants from the Charitable Fund for clothing were found to be immensely useful and was much appreciated. Paragraphs (b) and (c) of the same head which admit of additions to Government relief are not all easy of accomplishment, and were certainly not tried in Gurgáon. It would be always difficult or inconvenient to determine what the additions should be, and even if they were adopted there would be difficulties always in carrying them into practice. The two forms of relief should not be mixed up. Experience in the recent famine has shown that the allowances made in the gratuitous relief were invariably difficult as they provide a ration capable of sustaining life, and this seems to be the object desired.

Under Object II all the provisions are such as might remain unaltered, and so also with the first three provisions under Object III, but under the fourth cheap shops should never be tried unless grain is exceptionally dear. The cheapest grain commonly used by the people in the late famine was never so dear as to lead to the adoption of cheap grain shops, and the system was not tried because there seemed no occasion for it.

Object IV is one in which the district has received considerable help from charitable resources, and its provisions as in the case of Object are valuable.

Object V is also necessary, though it may not be often resorted to.

106. No. (a) Weekly postcards were received from the Station Masters of several Railway Stations in the district showing the import and export of food grains, (b) Yes, but in a few instances some Station Masters were not punctual.

107. No.

108. No change has taken place in the character of the crops sown of late years.

109. (a). No.

(b). Yes.

(c). Yes.

110. The provisions of the Famine Code were adhered to as far as practicable.

111. No.

112. (a). Non-official agency was used to a small extent and was most successful.

(b). Yes.

113. (a). Changes were made in the task, scale of wages, system of work. The only effect from these changes was in the case of reduction of wages by which the people left works in large numbers and when they found the same scale of wages on all works they commenced coming back.

(b). These changes had no unfavourable effect on the death-rate; in fact those labourers seeking relief who worked in a most emaciated condition, and chiefly from Native States, rapidly improved on the wages given them throughout the continuance of famine relief.

114. No.



Military Assistant Surgeon W. C. M. Charters.

*Answers by Military Assistant Surgeon W. C. M.
Charters, Civil Surgeon, Gurgaon, to the
written questions of the Indian Famine Com-
mission, 1901.*

Introductory.

1. The outlook in the Gurgáon District when the rains of 1899 commenced was most favourable.

The monsoon set in during the second week of June, and throughout June and July every tahsil of the district received rain plentifully.

Extensive sowings were made, and prospects of a good harvest were entertained till the beginning of August.

Unfortunately the rains became very feeble in August and September throughout the district, and hot west winds prevailed, causing the crops on rain lands to wither and perish; even those on canal or well-irrigated lands suffered largely on account of these dry hot winds.

The rains having set in so favourably, the cultivators were induced to make unusually large sowings, and on the holding off so completely of the monsoon, the loss was made ever so much heavier.

The harvests of the two preceding years were below normal, and, on the whole, I believe, not profitable.

2. The kharíf sowings of 1899 were above normal.

3. (a) The average rainfall of the district during the rainy season is as below—

Gurgáon Tahsil	.	.	.	.	.	22·84
Rewári	„	.	.	.	.	19·61
Palwal	„	.	.	.	.	21·46
Núh	„	.	.	.	.	22·88
Fírozpur	„	.	.	.	.	21·88

(b) The actual rainfall with the percentage of the average was as follows:—

	Actual rainfall	Percentage of average rainfall.
Gurgáon Tahsil	11·87	49·3
Rewári	8·88	43·7
Palwal	18·57	86·6
Núh	9·70	42·9
Fírozpur	15·07	73·4

(c) The rain ceased on 15th September 1900.

(d) The distribution of rainfall from June to September as compared with the average was as below—

MONTHS.	GURGAON.		REWARI.		PALWAL.		NUN.		FIROZPUR.		REMARKS.
	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	
June	3.51	2.59	5.17	2.20	12.01	1.52	4.83	2.80	7.51	1.75	
July	4.59	8.77	2.00	7.20	4.93	9.05	2.43	8.90	5.48	7.54	
August	2.55	6.64	0.78	6.87	1.47	6.42	1.93	6.64	1.05	7.85	
September	1.22	4.84	0.43	3.34	0.16	4.47	0.51	4.49	1.00	4.74	
TOTAL	11.87	22.84	8.38	19.61	18.57	21.46	9.70	22.83	15.07	21.88	

Preliminary action.

6. The necessity of relief was assumed from the fact of crop failure.

7. (1) Number of people wandering through the district; (2) failure of kharif of 1899; (3) people began to leave their villages in search of work; (4) prices were high; and (5) such ordinary works as were open were becoming overcrowded.

8. Test works were first opened and wages were given according to the Punjab Famine Code, and the task was slightly raised.

11. Test works—

Poor-houses.

Kitchens on works

12. (d) The physical condition of the people was observed by me during my tours on vaccination, sanitation and dispensary inspections. Reports were regularly received from the branch dispensaries pertaining to the prevalence or otherwise of such diseases as could be attributed to insufficient and improper food.

14. Irrigation wells can be excavated in those parts of the district where the water is not brackish.

The average depth of water below the surface on the cessation of rain in 1899 was 20.60 feet in respective tahsils.

Digging of *katcha* wells was encouraged and was successful—

(a) In securing the crop on the ground.

(b) No.

(c) As a temporary measure to employ labourers to a little extent.

16. Earthwork and stone breaking. The task for earthwork was taken irrespective of previous occupation.

17. Payments were made in strict accordance with the outturn of work. There was a maximum wage. No rest-day allowance, nor an allowance to dependents except that 2 pice were allowed to nursing mothers. There was no minimum wage.

18. The following circumstances induced the conversion of test works into relief works—

(a) The holding off of the rains followed by the failure of the winter rains.

(b) Gradual and continued increase in the numbers on works.

Large Public Works.

19. Large public works were first opened, viz., Ghata Bund, Rewári-Phulera Railway and Delhi-Agra Chord Railway.

22. The camp grounds were selected and approved of by me in conjunction with the Sub-Divisional Officer, generally a fortnight or more in advance, and sufficient huttings provided for 5,000 labourers.

The sources of water-supply were cleaned and treated with potoso permonguos twice a week.

The wells were always fitted with wooden covers to lock, and a guard put on them to prevent pollution.

Iron tanks were placed at each well from which water was drawn by *charsás* and let into the tanks by a hose; these tanks were also locked, water was conveyed from the tanks in tin canisters to the several *piaus*, and distributed along the work where the water was stored in wooden casks fitted with covers and taps.

Each cask was under the charge of a Brahmin whose duty it was to have the casks always full, and to distribute water to labourers.

On some works these casks were fitted on to country carts, and filled at the well either by a hose or water drawn from the tank.

The carts were then taken round the work supplying water to labourers.

Camp residents were allowed to take their water from the tanks for cooking purposes through taps only.

There was no chance of the water being polluted by labourers, and throughout the continuance of famine works this was the main object aimed at.

The conservancy arrangements were under the charge of a Jamadár and sufficient staff.

Their work was supervised by the Civil Officer and Hospital Assistant in medical charge of the camps.

Latrines were always on the trench system and situated 200 yards to leewards of the camps. Separate latrines for men and women were provided.

The food supply was regularly inspected by the Civil Officer and Hospital Assistant in medical charge, and by me at my visits to the camps from time to time. Each camp of 5,000 people, and which was situated more than 3 miles from a dispensary, was provided with a hospital with 16 beds for the treatment of in-door patients under the charge of a Hospital Assistant who had a Compounder to assist him, with a menial staff consisting of a cook, sweeper, *bhishti* and ward cooly.

Camps situated within 3 miles of a dispensary were daily attended to by the Hospital Assistant of

that dispensary, and all cases requiring in-door treatment were sent to the nearest dispensary for the purpose.

Medical and surgical stores were obtained from the Government Medical Store-keeper, Meean Meer, on indents countersigned by the Inspector-General, Civil Hospitals, Punjab. Medical comforts, etc., for each camp were arranged for by myself through the Sub-Divisional Officer.

The materials for hospital diets were arranged for by the Hospital Assistant and Civil Officer in charge of each camp.

There were special latrines on the dry earth and removal system placed near the camps for the use of people taking sick at night.

There were segregation camps for contagious diseases. When cholera appeared in the vicinity of the district, observation camps were opened for new comers where they were kept for five days before being permitted to the main camp.

29. The labourers were classified, as (i) diggers, (ii) carriers, (iii) working children, (iv) Light-work gangs, and (v) non-working children. The only difference between this classification and that of paragraph 415 of the Report of the Famine Commission for 1898 is in class (iv). This is from the point of view of economy.

30. If a woman cannot do the same amount of work as a man can do, there must certainly be a difference in her wage, but when a woman can perform the same task or do a man's full outturn of work, she should be given the man's full wage. This has very often occurred on our famine works, and the women have complained about getting less wages than men.

32. Yes, especially at Narnoul, where the condition of the people seeking relief was below par, and necessitated every allowance being made for them.

33. Full task as laid down in the Punjab Famine Code was demanded from all except those found to be in a weakly condition, who were put on light work and given such tasks as suited their physical condition.

34. The wages were adequate. Labourers coming on our works in a debilitated and emaciated condition improved rapidly.

40. Payments were made either to the individuals or heads of families. Both methods worked well.

43. The maximum wages were the equivalents in money of 18, 13 and 7 chittáks per digger, carrier, and working child, respectively, of the cheapest grain selling at the time. Children were fed at the camp kitchens. Weakly people, who were unable to fulfil the full task, were put into separate gangs, and a suitable task was given to them for which they received the maximum wage.

47. As regards water supply, see answers to Question No. 22. Regarding hospital arrangements: as soon as information was given of the necessity

of opening a relief camp, the camp ground was selected and approved by the Civil Surgeon; the Inspector-General, Civil Hospitals, Punjab, was asked to depute a Hospital Assistant for the medical charge of the camp. The necessary medicines and surgical instruments were indented for on the Meean Meer Medical Store Dépôt, the Inspector-General, Civil Hospitals, countersigning the indent. Arrangements for compounders and menial staff were made by the Civil Surgeon.

Special Relief.

58. (a) Yes, namely Meos Ahírs, Jats, Gujhars, Ranghars and Khanzádars.

(b) No.

(c) They came on to relief works when famine became severe.

62. The weaving class readily came on to relief works.

Gratuitous Relief.

66. Dependents on large works were fed twice a day at the camp kitchen with cooked food.

69. (a) Two poor-houses were opened in the district—one at the head-quarters of the district was opened on the 13th January, and the other at Rewári on the 15th January 1900.

(b) Chiefly menials from the surrounding Native States.

The numbers were large at both poor-houses, especially in July.

70. Yes.

71. From time to time the inmates as fit were sorted out and sent to the nearest relief work after examination by the Civil Surgeon or the Assistant Surgeon. Some of them were sent to their villages with a slip entitling them to gratuitous relief when the numbers began to be excessive at the poor-houses.

72. Five camp kitchens were opened before the rains broke.

(b) Nil. They served only the dependents of workers.

73. The minimum ration laid down in the Punjab Famine Code was allowed in the kitchen. Meals were distributed twice a day at fixed hours, and dependents were compelled to finish their meals in the enclosure made for them.

74a. All new inmates admitted in a low state of health were given milk diet to commence with, and as they became able to digest this they were given milk and rice or milk and sago or *sujee* according to their power of digestion. As they improved, they were gradually brought on to solid food as laid down in the diet scale* for poor-houses. Those who required extra food were given extra at the discretion of the Medical Officers visiting the institutions, and which was given to them at midday.

*Adults—	Chittáks.
Flour	7½
Dál	1
Salt	¼
Ghi or oil	¼
Vegetables and condiments	¼
Children 7 to 12—	
Flour	7½
Dál	1½
Ghi or oil	¼
Salt	¼
Vegetables and condiments	¼

Nursing mothers received milk in addition to their ordinary rations, and their infants when found emaciated were also given milk in quantities according to ages and digestive powers.

75. On works only to dependents of workers.

76. (a) Brahmins were employed as cooks.

(b) No reluctance was ever shown by people to take food cooked by them.

77. Each camp kitchen had a superintendent who was responsible for the fresh supplies, etc., required. The quantity and quality of the cooked food were tested by the Civil and Medical Officers in charge of the camp, the Civil Surgeon, who visited the camps from time to time, inspected and tested the food and its weight.

General.

85. No.

86. No.

87. The people in receipt of relief were mostly menials with a small percentage of cultivators. Emigrants from the surrounding Native States were in large number.

90. Yes.

92. The registers of births and deaths of rural circles are kept by the police and those of municipalities by the Municipal Committee. They are subsequently transferred in Civil Surgeon's Office for record.

93. Increase in mortality amongst people actually belonging to this district cannot be attributed to insufficient or unsuitable food, as they were timely provided for; but certainly a large number of deaths occurred in the district from amongst refugees from Native States who wandered about practically in a starving condition.

94. There was no excessive mortality in any of the famine relief camps in the district which could be traced to insufficient or impure water-supply.

Permanganate of potash was freely used for disinfecting sources of water-supply. In famine relief camps wells were treated twice a week.

95. (a) and (c) See answers to Question No. 22.

(b). At poor-houses sanitary precautions were most rigidly enforced. The latrines were on the dry earth and removal system. Sources of water-supply were protected and treated regularly with permanganate of potash.

On the occurrence of cholera in the district preventive measures were at once taken to protect the inmates of the poor-houses; their water was boiled and filtered, and thorough cleanliness, personal and general, was insisted on. Their food was thoroughly cooked and distributed at regular hours. All new comers were segregated in huts outside the poor-house enclosures for five days, and then allowed into the poor-house quarters after being made to bathe and wash their clothes with phenyl lotion.

Children below 7 years—

Flour	.	.	.	3½
Dal	.	.	.	1½
Ghi or oil	.	.	.	½
Salt	.	.	.	½
Vegetables and condiments	.	.	.	½

96. Yes, the grain shops were regularly inspected by the Civil and Medical Officers in charge of the camps and by the Civil Surgeon at each of his visits.

97. The following is a list of wild products found in the district, and which were largely used by famine-stricken wanderers from Native States to supplement such ordinary food as they obtained by begging; certainly these in many instances produced dysentery and diarrhoea and very often of a fatal nature.

No.	Name of products.	Mode of use.
1	Jharleeri or Pala . . .	Made into flour and boiled with water.
2	Samak	Boiled with water.
3	Gokhru	Powdered and made into <i>chapátie</i> .
4	Tint	" " "
5	Pilu	" " "
6	Hulhui	Leaves boiled.
7	Bithwa	" "
8	Choulai	" "
9	Kaundra	" "

98. Yes.

99. About 50 per cent.

100. At the end of famine and closure of poor-houses, orphans were accommodated at the Gurgáon poor-house which was converted into an orphanage. The orphans were either made over to their friends, caste people, or sent to native institutions.

106. The provision of Famine Code was adhered to as far as practicable.

109. When a reduction of wages was made, the only effect noticed was that labourers left in large numbers, but soon returned on seeing that the wages were the same on other works. Regarding the death-rate, there was no unfavourable effect following the reduction. In fact the condition of the labourers rapidly improved as the wages were adequate.

Rev'd. S. S. Thomas.

Answers of the Rev'd. S. S. Thomas, Principal, Baptist Mission Training Institution, Delhi, Honorary Secretary of the Delhi Branch of the Indian Famine Charitable Relief Fund, to the questions of the Indian Famine Commission, 1901.

Note.—Having had no experience of most of the matters referred to in the questions submitted, I confine myself to the relief given in connection with the Local Branch of the Indian Famine Charitable Relief Fund.

Funds.—These were all raised locally and show a very great advance on the amount raised in 1897, viz., in 1896-97, Rs18,328 were raised locally and in 1900, Rs37,351-11-6. I estimate that Europeans contributed Rs4,392 to this amount. The following digest shows how the money was disposed of, and the numbers benefited by the local expenditure:—

DIGEST.

	R	a.	p.
Remitted to Provincial Committee, Lahore	26,589	10	6
Expended locally—			
Under Object I	110	11	0
„ „ III	3,430	13	0
„ „ IV	7,097	7	0
Honorary Secretary's office and staff expenses (including loss on bad coins, etc., Rs14-6-0)	123	2	0
Total subscriptions	37,351	11	6

DETAILS.

Free grain distribution.

Recipients, maximum in August	728
Average for five months	556
Total cost of grain	Rs2,040 14 9
Cost per head per mensem	„ 0 11 8½

Labour.

Gross expenditure on labour	Rs3,586	1	6
Realised on sales	„ 2,196	3	3
Net expenditure on labour including cost of establishment	Rs1,389	14	3
Daily cost per head (including all expenses)	„ 0	2	1½
Maximum daily wage	„ 0	1	6
Average number of women employed for 45 days. { At Azam Khan, in charge of Miss Williams }			158
Do. { At Shaikh Chand under Miss Byam. }			72
Highest number employed during that period			634
Loss on cost of cloth in sale of garments	11½	per cent.	

Loss on cost of cotton in sale of yarn	33 $\frac{123}{116}$ per cent.
Total number of garments made	9,708
Amount expended on sending 2,000 persons to their homes by rail	R2,400 2 0
Amount expended in relief to 808 families rendered destitute by the fall of their houses in the September rains	„ 4,508 5 0
Cost of collection of Funds per cent.	„ 0 5 3

Necessity for Relief.—Ever since 1897 there has undoubtedly been a considerable amount of distress in the city. The various trades in which the *burqa posh* women engage are declining industries, and the distress is chronic and becomes acute when accentuated by a rise in the price of grain. Dearness of food-stuffs of course affects all classes and naturally lessens the demand for gold and lacework and fine muslin stuffs, on the manufacture of which most of those relieved by us both in 1897 and in the present scarcity are dependent. This time we confined relief to women only, and these were mostly widows and deserted wives.

Nature of Relief.—Relief was given by free grain doles and by labour.

The grain was given to those who by reason of age or other infirmity were unable to work. Every applicant for such relief was visited in her house by a European lady, who made every possible effort to ascertain the necessity for relief.

The grain was personally distributed by ladies every Friday at the same hour at the two houses rented by the Fund in two different parts of the city. The amount given each week varied from 2 to 4 sérs according to the previously ascertained condition of the recipient. Free grain relief entails less labour on the distributors than any other form.

Relief by labour.—As I have mentioned above, free grain tickets were given to the aged and otherwise disabled only. For those able to work spinning cotton yarn and plain sewing were provided.

Spinning.—This was by far the less popular form of labour. Very few women were found who knew how to spin, and it was not of course possible for the ladies to undertake to teach those who had not previously learnt.

In the month of April there were 84 spinners at Azam Khan and 11 at Shaikh Chánd. The women who had private machines were allowed to take one day's raw cotton to their own houses to spin; others worked in the houses rented by the Fund. In my judgment spinning relief work is much too expensive a form to adopt.

Taking the actual cost of the cotton as the unit (*i.e.*, exclusive of the wage and cost of establishment), there was a loss to the Fund of nearly 34 per cent.

The spinners as a rule were not able to earn more than an anna or 5 pice a day.

Plain Sewing.

This was an interesting experiment, and on the whole must, I think, be considered a successful one. Whilst the work lasted it taxed the strength of the two ladies responsible to the utmost, and when it was stopped it left nearly ten thousand garments of all sizes and shapes and no shape at all to be sold. Lāla Ganesh Dās, a local cloth merchant, bought all the cloth and made it over to me. I supplied the ladies as they needed it, and twice a week they sent me ready-made garments which I stored in a room in the Town Hall buildings. At one time Miss Williams was superintending the work of 377 sewers daily, paying them herself. The ladies report four and five hours a day as spent by them in the work. I know, however, that the time devoted to the work was much greater than these ladies state. The four and five hours simply denote the time actually spent in the relief-house. The goods were sold mostly to local dealers. Taking the cost of the cloth as the unit, I estimate that the garments were sold at a loss to the Fund of $11\frac{3}{4}$ per cent. The difficulties of this form of relief are—

- (1) to secure sufficient supervision of shape, size and quality of work in the garments, and to prevent the cloth from being stolen;
- (2) to get a market for the clothes when made.

If the first difficulty could be got over, however, I believe the second would be much lighter.

Another piece of work undertaken by the Fund was the sending to their homes those who had come to Delhi from famine districts and were stranded here without any houses or means of subsistence. Some 2,000 persons were sent by rail to the station nearest their home, and for every 10 *kos* they had to travel from the rail they received 2 annas expenses. Many had to go 40 or 50 *kos* and a good many as much as 80 or 90 *kos*. They were collected in Lāla Ganesh Dās's poor-house and he personally ascertained their circumstances, had their names written and decided what allowance should be made them. They were mostly entrained by myself, the allowance being paid at the train. Many of them were zamíndárs, others field-labourers, and all wretchedly destitute. In helping them to get back to their homes, where they said they would be able to find employment, I believe the best bit of relief work was done which the Fund has attempted. The average cost of sending them was a trifle over ₹1.6 per head.

Registers of the free-grain recipients and of those relieved by labour were regularly kept and tickets issued.

From the above it will be seen that the whole relief operations were in the hands of Zenána Mission Ladies, and I believe that their work fully

justified the opinion I expressed as to the desirability of their employment in my evidence before the Indian Famine Commission of 1898. Indeed in the reports of the Commissioner of the Delhi Division and the Deputy Commissioner of Delhi this opinion finds official confirmation.

Organization.—A General Committee consisting of about fifty of the principal gentlemen, European and Indian, of the city and district was elected, and from it an Executive Committee of 12 persons was chosen. Collecting books in English and the Vernacular were printed and each member of the General Committee was a collector. Printed minutes of all Executive Committee Meetings were regularly sent to the members of the General Committee. All printing required for the Fund was done free of cost.

Mr. H. C. Fanshawe, C.S.I.,

Answers of the Honourable Mr. H. C. Fanshawe, C.S.I., Commissioner and Superintendent of the Delhi Division (on privilege leave) to certain questions of the Indian Famine Commission of 1901.

NOTE.—I would ask that these replies may be read with my brief report on the Famine to the Punjab Government. (*Vide* letter No. 599, dated 28th December 1900.)

INTRODUCTORY.

These questions will be answered by the Deputy Commissioners of each of the districts affected by distress and famine. From the Divisional point of view it may be said that the following tracts suffered from famine :—

- (1) All unirrigated tracts of the Hissár and Rohtak Districts ;
 - (2) Rewári Tahsil, Gurgáon District ;
 - (3) Kaithal Tahsil, Karnál District ;
- and the following tracts from distress :—
- (4) Gurgáon, Nuh and Fírozpur Tahsils of Gurgáon District.

The relief in the Delhi District was provided on the Delhi-Muthra Railway relief work for outsiders ; there was no general distress even in that district.

PRELIMINARY ACTION.

6, 7 and 8. The late experience of 1897, my earlier experience of the drought of 1877 in Roh-tak, and of the after-effects of that drought in Gurgáon, where the settlement was revised in 1881-83, and the failure of our crops in 1898, told us clearly in September 1899 that famine was to be expected in the above tracts of Hissár, Rohtak and Karnál which had suffered in 1897, and it was merely a question whether distress would develop and deepen into famine elsewhere in Gurgáon and Delhi, which, however, fortunately it did not do. Our test works in Hissár and Rohtak opened in September were at once crowded ; elsewhere the test works filled more slowly, but everywhere they brought into evidence signs of approaching famine and distress. Our local distress in the early stages was much complicated by the influx of great numbers of starving wanderers from Rájputána. Test works were converted early into relief works in Hissár, after about six weeks in Rohtak, and after considerably longer intervals elsewhere.

9 and 10. We were not ready—please see paragraph 2 of my brief report on the famine upon this point. We had practically no large relief works on the programmes, but I was able to get this put right within a few weeks, and we were able to start large relief works on tanks and railways in November. I was myself in favour of moving the

Hissár and Rohtak people to distant productive relief works, but finally this was abandoned owing to an unfortunate outbreak of cholera in Jhelum, to which they were first sent. The large works of the Lower Bári Doáb Canal and the Jumna Canal-Ghaggar Escape which I was anxious to have started could not be recommended in time as feasible projects, and we therefore fell back on large tanks, of which I had experience in Behár in 1874.

18. The increase of numbers in Hissár and Rohtak led to the conversion of test works into relief works. I was not able to visit Hissár before this was sanctioned, and was guided mainly by the application to then existing facts of the experience recorded in Captain Dunlop-Smith's report. I think now that as regards the Pachhádás of Hissár and as regards Rohtak, it would have been well to have maintained the test stage of relief work, *i.e.*, non-payment of dependents for rather longer in the circumstances of this famine. *Per contra* owing to local misunderstandings the test stage was kept on a little too long in Gurgáon.

20. As large relief works were opened the Department Public Works assumed control of relief work operations under the general supervision of the Deputy Commissioner, test-works having been run by the latter. This was inevitable where the numbers on the works were large. We were not ready with details under this question, but the Department Public Works. Appendix of the North-West Provinces Code was of great help in aiding us to get things quickly right. The delay in opening works was in no case serious, but few only were opened in a perfectly satisfactory manner from the very commencement.

23. Admission was without restriction in Hissár. In Rohtak and elsewhere, as the numbers went up, later we tried a modified admission system, which was best worked in Rohtak, and which I consider was a success. Deputy Commissioner, Rohtak, will give details. Please see my report, paragraph 8, for further details under this head, and the circumstances in which I consider additional tests should be imposed. The distance test was proposed by me when the discipline, etc., on works was tightened after the cold nights passed away, but was not actually enforced anywhere, the ticket-admission system in Rohtak at least superseding the need of it.

Residence on the works was not compulsory. I hold it to be of great importance that people on relief works should be allowed to reside in their homes and home surroundings as far as possible, and the test of the daily walk of four to six miles to and from the works is a very valuable one. Except in Hissár, where the people *had* to leave the villages for want of water and supplies, the number which resided on the relief works was never very great in the most distressed tracts.

24. This must depend wholly on the severity of the famine. Five thousand is about the maximum number which a native Civil Officer in charge of a

work can control effectively, at least until he has had considerable experience. The people often came four and even six miles from their homes on to the works, and most of those in the camps were allowed to visit their homes on Sundays. This seemed desirable on grounds of humanity and social tie, if not strictly contemplated under the Code.

28. Much care was taken to inculcate the importance of ganging by families, and castes and villages, and this was done successfully on the whole I think. I attach very great importance to this from the social and moral point of view, and consider it is one of our most effective means of preventing demoralisation on our relief works.

30. We met with no difficulties in treating men and women alike within their class, and I am strongly in favour of the system. It saves an infinity of trouble in returns, and stops a special loophole of cheating.

32. My own belief is that with properly organized works a system of payment by results should be possible throughout, and would be much the best. That we were not able to work such a system in the Delhi Division during the late famine was due to the fact that the Secretary, Department Public Works, Colonel Jacob, declared that his officers could not bear the additional strain of it. I have never quite perceived where that strain comes in, and once properly started, I believe the system would work as easily as the task system with the great advantage of avoiding making the people feel they are recipients of charity.

34. I have discussed this in paragraph 3 of my Famine report, and need not repeat here what I have said there. I believe very little was saved by our workers—not more than is both desirable and justifiable if we wish to keep up habits of self-respect and thrift during famine. We had no difficulties in securing the return of copper coins through baniás on the work and in adjoining villages, or the return of small silver coins, in which we paid largely.

35. I think that on grounds of humanity we should allow one day's holiday in the week. The life on relief works is terribly monotonous month after month, and as noted above it is well to let people renew touch with the villages and the people left in them on the Sunday holidays. I should much prefer the holiday and payment for it to increasing the wage of the six week days so as to cover the cost of living on the seventh day.

36. I declined to allow any minimum wage when once the people settled to work, and experience proved that a minimum wage was not needed, and that nearly all the workers, as ganged and controlled by us, were able to do a full task. It was explained to all that it was morally incumbent on them in recognition of Government aid to do the task set by Government, and this liability was very generally recognised I consider.

38 and 39. We paid usually twice a week, paying new comers daily for the first three days or week, and I consider this is quite sufficient. Daily payments were certainly not necessary with us, and they add greatly to the work of the Civil Officer in charge if they are properly supervised by him. Our experience was that the people did not get in debt to the baniás.

45 and 27. Tasks were altered by the Sub-Divisional Officer and Executive Engineer, and by the Civil Officer in charge of the works subject to their sanction, the general standard tasks having been fixed by the Executive Engineer in consultation with the Deputy Commissioner, and this is I consider the best system. All changes made by the officer in charge should be recorded in the minute book of the work.

Wages were fixed by Commissioner and were confirmed by Government; no discretion was allowed to local officers in the matter of the wage to be paid. There was no overruling of any officers in either matter as far as I know.

SMALL VILLAGE WORKS.

These were avoided entirely. I do not understand how any real test of distress can be enforced on them, and if you admit people on them by ticket only, then you destroy the system as compared with that of large relief works. Nor do I understand how either full tasks or an honest distribution of wage is to be enforced on such works.

SPECIAL RELIEF.

63 and 61. Our weavers and artisans all went readily on to relief works, and they do not need any special form of relief, though they need specially kindly treatment for two or three weeks, say, on relief works. Any attempt to help them in any other way must inevitably be much more expensive to Government.

66 and 67. We were unable to do anything beyond giving small advances for fodder to enable the cattle working wells to struggle through. The cost of supplying fodder to keep cattle generally alive for ten months would have been enormous. It must be remembered we had one famine, one year of failure of crops and fodder and a second famine in the four years 1897—1900, and that in consequence the fodder and grass supplies ran lower than had ever been known, or is ever likely to occur again.

GRATUITOUS RELIEF.

70. I consider that the selection of persons for receipt of gratuitous relief by our village, zail and tahsil staff was very carefully made and supervised, and that the administration of this relief was eminently satisfactory. I myself saw several thousand of the people placed on the relief, and saw none who were not fit recipients of it. Our dolo was

given in cash, and I much prefer this system. There was not test of eating food—the test was absolute destitution and the saving of life.

71, 72 and 73. The poor-houses were opened mainly for the benefit of wanderers from Rājputána, and, except in Hissár, were opened a little late. In no single case were workers sent to poor-houses because of contumacious behaviour on relief works. The inmates were regularly drafted on to relief works. Department Public Works officers were not at first very successful in receiving and dealing effectively with such persons on the relief works.

74. We had no separate civil kitchens in our districts, and I hope there will never be any such in the Punjab, as I cannot understand how they can be otherwise than demoralising, though they may be necessary to save life in some provinces. The conditions of our rains are such that kitchens are not specially needed during them, as relief works can always go on during them as far as may be necessary.

80 and 81. Cheap grain shops were tried only in Rohtak as part of charitable relief. In my opinion they were not needed and should never be opened unless real famine prices prevail, say, wheat sells at 8 sérs per rupee. The few cheap shops opened had no effect of course upon imports of prices.

SUSPENSIONS.

82 and 83. These were given wholesale to villages as whole units in 1900, large suspensions after consideration of individual circumstances having been given in 1899. They must always be so given in the South Punjab, and our land revenue settlements of that tract are based on the principle that they will be so given. The suspensions were announced at once, *i.e.*, some two months before collections were due, and had the best possible effect in encouraging the people and giving them confidence in the intentions of Government to aid them. No failures of the kind mentioned in question 86 have come under my notice.

GENERAL.

88.—During December-January, while our Department Public Works officers were mastering their work and completing the organisation and discipline of our large relief works, and while our wage was at its highest because of the cold nights, a certain number of people were on them who did not absolutely need to be so, and who afterwards went off them. This should be guarded against on another occasion—see my general report. Relief was never defective in my opinion.

90 and 91. It was inevitable that in a second famine following another at an interval of only two years, people should flock to relief works more readily than they did in 1897. Please see my general report on this point. Private credit was almost exhausted and silver jewellery was largely

refused as security. Except as regards the Pachhā-dās and the village menials most persons practically exhausted their private resources before coming on the relief works.

92 and 93. Please see my Famine Report on this point, paragraph 6.

100 and 101. The morality among immigrants from Rājputāna was very high, and must have been terribly high on the road from their homes to our districts. Personally, I never saw more than two or three bad cases of famine emaciation among people from our districts; all the other cases were those of people from Rājputāna and the Punjab Native States, *viz.*, the outlying tracts of Patialā, Nābha and Jind, and Lohāru and Dujāna on the south border of the Punjab. It is most necessary that effective steps should be taken to stop this emigration in future.

104. There was very little to complain of. At one time bookings of food-grains from beyond Delhi could not be passed on promptly to Hissār by the Rājputāna Railway, but this did not last for long—at another, high rates on this railway caused grain to be sent by the Southern Punjab Railway to Roh-tak and thence by road (28 miles) to Bhiwāni which of course raised the price there to some small extent, but this too was adjusted after some weeks. The import of grains was carefully watched throughout in each district.

105. Special enquiries were made on this point, and it was clearly ascertained that no difficulties had been created in the ordinary labour market.

108. We departed from the Famine Code in keeping test-works on longer than is there contemplated, in specially admitting workers to relief works in the neighbourhood of their villages, in paying wages twice a week only, and in giving gratuitous relief in cash once a week only. All these departures were, I consider, justified and beneficial.

109. Two Staff Corps Officers and a number of Non-Commissioned Officers of the Native Army were employed on relief works, and I should be always glad to see a number employed on special posts. But I prefer the Civil Relief Officer in charge of a relief work to the Non-Commissioned Officer or Native Army Officer, discipline though being important not being the sole element of successful management of these works. The more English Officers you can put on relief administration the more humanity and thoroughness will be apparent in that administration.

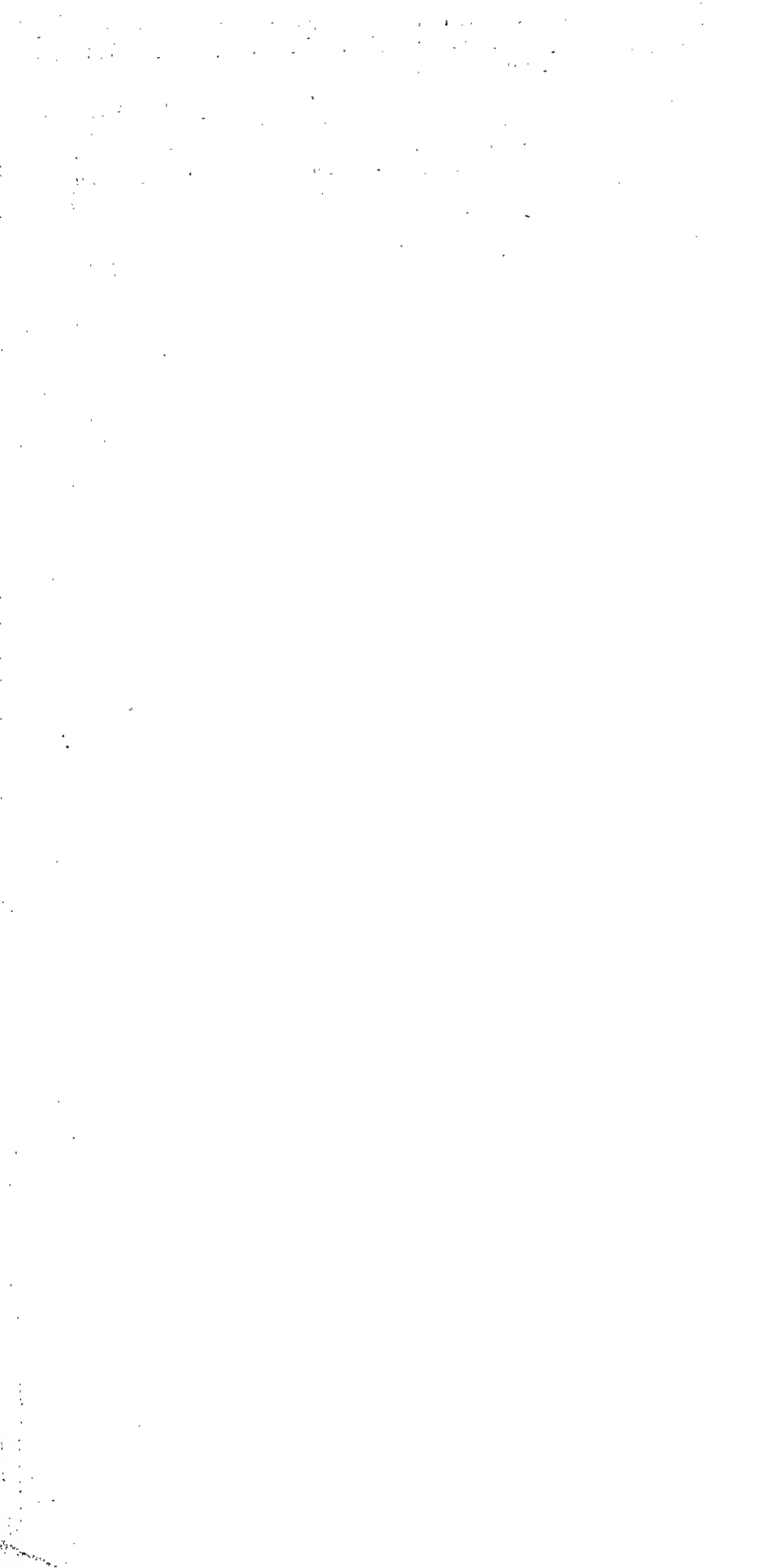
112. There was no serious demoralisation I consider; indeed, I doubt if there was any at all in any general sense, but, as noted above, in most cases only a certain number of our workers resided in our relief camps. In the Punjab, at least with its strong village communal feeling, such demoralisation could, I believe, spring only from thoroughly bad management of relief works.

I shall be glad to answer any further questions which the Commission may wish to ask me with

reference to the answers of any officers who served under me and with me from September 1899 to September 1900.

It will be understood of course that my views refer only to Punjab conditions, climatic and social, and it will be recollected that the people to whom they relate are peculiarly strong and independent and have remarkable powers of resistance and recuperation.

H. O. FANSHAWE.



Lieutenant J. T. Weston.

Answers of Lieutenant J. T. Weston, Civil Surgeon of Hissár, to the Question of the Indian Famine 1901.

Large Public Works.

22. In the Famine Code arrangements regarding medical and sanitary matters were amply prescribed.

Gratuitous Relief.

71. Five poor-houses. In the early part of the famine. Dates can be ascertained from the Deputy Commissioner's Office at Hissár. Mostly the lower classes. The numbers were large at certain periods.

72. Poor-houses were not used as dépôts for vagrants and immigrants, because there was ample provision made for them at relief camps for such as were fit to labour.

73. Measures were periodically taken to weed out the poor-houses and to send people to their homes or to relief works.

74 (a).—The ration consisted of the cheapest food-grains for those who were constitutionally fit for such diet, and for those who were not, special food was medically prescribed: barley, *bajra*, *dal*, oil, vegetables and condiments, and in case of sickness wheat, rice, *dal*, milk, Mellin's food, sago, arrow-root and sugar, eggs and meat. Rum as stimulant.

General.

94. The usual system as adopted in the Punjab. It was observed in the relief camps under the supervision of the Civil officers and in the poor-houses under that of the Superintendent.

95. It is impossible to answer this question for the want of correct history of each cause of death.

96. Impure or insufficient water supply was not a cause of increased mortality, excepting in two instances where certain famine relief workers, against all precautions and in the face of an abundant and pure water supply, partook of the contents of two neighbouring tanks, and thereby were affected with cholera. Permanganate of potash was regularly and freely used to disinfect wells. The frequency depended upon the danger to which the water supply was subjected. The water supply was always rigidly protected from contamination, and was abundant.

97. The sanitary arrangements were ample, and were carried out in accordance with the rules prescribed in the Famine Code on works, poor-houses and at kitchens. They were supervised by medical subordinates at duty at the famine works, and also by inspecting Assistant Surgeons and the Civil Surgeon of the district.

98. Regular inspection of the grain shops was made by the medical subordinates, visiting Assistant Surgeons, and the Civil Surgeon of the district. On only a few occasions inferior grains were found being sold, and then in small quantities, and were promptly discovered by either the medical subordinates or the Civil Officers in charge of the camps.

99. It is a common habit of the people of this district to eat a wild berry as well as the blossom of the bush, and this practice was more resorted to during the famine year than in the years of plenty.

I have heard people declare that the bark of the *jand* was commonly used by certain classes as food, but in all my inspections I failed to verify such statement.

100. I observed immigration from Native States, but am unable to roughly compute the proportion.

102. The orphans were disposed of at the end of the famine by having been made over to their friends, missionaries and to orphanages.

The questions unanswered will be better replied to by other District Officers to whom they directly refer, hence they have been omitted.

J. M. Campion, Esq., M.I.C.E.

Answers of J. M. Campion, Esq., M.I.C.E., Chief Engineer to the Punjab Government, Public Works Department, Buildings and Roads Branch.

Copy of a letter No. 676, dated the 26th January 1901, from the Chief Engineer, Punjab, Public Works Department, to the Secretary to the Indian Famine Commission, Allahabad.

On the orders of His Honour the Lieutenant-Governor, Punjab, and in accordance with paragraph 4 (b) of letter No. 2-1, dated 24th December 1900, from S. H. Butler, Esq., I.C.S., Secretary to the Famine Commission, addressed to the Chief Secretary to the Government of the Punjab, I have to submit, herewith, answers to some of the questions which accompanied the letter just quoted.

While doing so I would mention that I was Superintending Engineer in charge of Famine operations in the Delhi Civil Division throughout the famine of 1896-97. Subsequently, in the severer famine of 1899-1900, in the same Civil Division, I held charge of a Special Famine Circle formed for the occasion. Among the officers who worked directly under my orders the following are most capable of affording information from direct observation and test.

(1) Mr. W. Macdonald, Executive Engineer, worked the Rohtak District throughout on a gang task-work system of payment by results.

(2) Mr. A. E. Orr, Executive Engineer, worked the Hissar District throughout on the task-work system of payments.

(3) Mr. D. McGregor, District Engineer, worked the Gurgaon District throughout, on limited and unlimited piece-work. Mr. McGregor carried out three large irrigation bunds, the Rewari-Phulera Railway embankment, and had much to do with working in foreign States.

(4) Captain C. L. Morris, I.C.S., was the most capable and efficient Inspecting Officer working under my orders; he has had special experience of the details of working famine relief.

(5) Mr. C. W. Loxton, I.C.S., also acted as Inspecting Officer for the Delhi and Gurgaon Districts, and saw most of the piece-work system and also the system of relief in adjacent foreign States.

19. Large public works, such as railway embankments, irrigation canals, irrigation bunds, railway stone ballast collection, and large tanks—1,200' × 600' × 18'.

20. Under Public Works Department control. The supervising establishment had been prescribed and was ready; there was no delay in opening the works; all necessary tools, plant and hutting material was collected and ready.

21. Each tank was designed for a maximum charge of 5,000 workers for six months, *plus* their dependents. On railway embankments and irrigation works camps were also arranged for a charge of 5,000 workers. This maximum was exceeded at times, and then the workers had to go to the nearest undermanned work open. So long as it was possible to accommodate the people of the locality up to 10,000 souls the charge was kept open.

22. Each charge had its own establishment, complete, as laid down in Appendix D, XIV of North-West Provinces Code. Each charge of 5,000 had huts laid out in camps of 1,000, at distances of not less than 1,000 yards apart, before the charge was opened for work; plots of ground were flagged off for each camp as "conveniences." Wells were selected or dug before the camps were set out, then covered in and permanganated or lined, and two chankidars were put in charge; regular camp baniás were obtained and established in shops; hospitals were built and completely equipped with drugs and stores. It was found the best kind of hutting for hot weather and cold weather, wet or dry, was a hole dug out 7' x 5' x 2' and spoil-banked all round, and covered with any kind of a pent thatch or *chatai*. The Sanitary Commissioner insisted on mat enclosure latrines for men and women; these were provided, cost a lot of money, and were seldom used; an acre of open ploughed ground harrowed twice a week was the best latrine. Nothing but iron tanks were eventually used for the carriage of water. The best, simplest and most certain method of disinfecting wells, watercourses, tanks, and drinking vessels was with quicklime. The installation of baniás was not a success. We now think the proper way is to pay for or provide them with carriage, and pay them monthly wages as well, and not commission. Our baniás were of little use, for nine out of ten workers dealt with their village baniás, walking miles every Sunday for the week's rations, and buying any cheap rotten grain they wished to without let or hindrance. I consider the medical arrangements, but particularly the daily inspections by Hospital Assistants for the elimination of the weakly and overworked, would have been much better managed had there been a British Commissioned Medical Officer to every eight charges; he would also, I think, have effected considerable economy in the equipment of hospitals and with the supply and use of drugs and stores: it is not possible, I consider, when cholera is about badly, also small-pox and measles, for any but a trained Commissioned Medical Officer to rigidly direct and control exclusive sanitary measures. The expenditure in hutting alone, by abandoning and rebuilding camps, was very great on our works.

23. At the commencement anybody and everybody was free to come on to the relief works provided they did the task set; after a while selection was instituted with good results. The distance test was considered and proposed, but never regularly instituted; residence in the work camp was so far

compulsory that only those who lived in camp got the Sunday wage.

25. Officers of the Public Works Department were subordinate to the Commissioner and Deputy Commissioners in all matters connected with famine relief works not of a professional nature : the selection and extent of the task was fixed by Public Works Department with the approval of the Commissioner.

26. There was a subordinate Civil Officer for each charge ; the majority of them were Field Kanungos and acting Naib Tahsildars, not a satisfactory class to organise and start a relief work ; there were a few Naib Tahsildars proper ; some Military Daffadars that were appointed were a great success. Their salary ranged from Rs. 40 to Rs. 60, which included all allowances. I consider it was too low for the hard work and harassing life of the Officer in charge of a relief work, of from 8,000 to 12,000 souls. The Officer in charge was entirely subordinate to the Executive Engineer and Sub-Divisional Officer, Public Works Department ; the Public Works Department Sub-Overseer and Work Agent were subordinate to the Officer in charge. It was one of the important duties of the Officer in charge to personally satisfy himself that all measurements were made daily and correctly ; he had to satisfy the Executive Engineer, the Sub-Divisional Officer, and the Inspecting Officer on this matter at every inspection. *Every* subordinate employed on a relief work had his responsibilities and duties not only explained to him by every officer connected with his charge, but he had a vernacular printed copy of the same given him for study, which he had to produce at any time he was called upon to do so.

27. In this matter of varying the task to the altered conditions of soil the primary responsibility rested with the Public Works Department Work Agent on the charge, who had to report it to the Officer in charge, and it was immediately effected if Officer in charge agreed ; under any conditions it had to be reported to the Sub-Divisional Officer too at once. The most important duty of all inspecting officers was to check the task on every part of a work.

28. The gangs were made up by castes and villages ; and these again were grouped on the work so that the lower castes worked at one end, and the better at the opposite end. They ranged from 50 to 70, including working children. No family party was ever allowed to be broken up or separated ; the Registration or Ganging Moharrir was a specially selected and specially paid man on every charge, and he was responsible for making up the gang. The success in this was marked by the facility with which an inspecting officer could detect how the work was being done, and the condition of the workers in regard to any faults of management. In a charge of 7,000 souls any named man or woman on the work could at once be found through the Registration Moharrir.

29. The classification on relief works was made as given in paragraph 445 of Famine Commission

Report, 1898, with the addition of a class for nursing mothers. The wages were fixed on two scales, a hot weather and a cold weather scale, under the orders of the Commissioner with the sanction of Government. They were as follows, in grain :—

		Cold weather.	Hot weather.
		Chhittāks.	Chhittāks.
Special class		No difference.	No difference.
Class I.	Diggers	20	18
" II.	Carriers	15	13
" III.	Working children	8	8
" IV.	Adult dependent	10	10
" V.	Non-working children	5	5

The Sunday wage all through for adult workers was 10 chhittāks, children workers 7 chhittāks, for adult dependents 10 chhittāks, for children dependents 5 chhittāks; mothers at childbirth were given a full carrier's wage *plus* a non-working child's wage and milk for one week, after which they got the carrier's wage and 5 chhittāks extra for the infant. The reduction to the hot-weather wage was carried out after full enquiry and after consultation with all officers employed on relief works. From an administrative point of view I think the alterations were sound, inasmuch as experience showed that under ordinary hot-weather conditions no profit off the wage could be made, when such articles of diet as *ghi* and *gur* were not needed as stimulants for protection against cold, and which were procurable from the higher wage and consumed in the cold weather. I also think this reduction of wage tended to keep away some people who valued their labour for more than a "living wage." Economically some saving was effected, but not much, and certainly no harm was done.

30. I am convinced that women cannot do the hard work of diggers, and so they should be classified separately, also that they do not require so much food as men; the 5 chhittāks extra given to men is a sufficient distinction. This distinction did not cause any difficulty, and was certainly conducive of economy, as there were far more women than men on all our works.

31. We began simultaneously with the code task system as well as payments by results; on a system of (a) gang task-work without a minimum wage, (b) limited piece-work, and (c) unlimited piece-work. Mr. W. Macdonald, Executive Engineer, can explain (a) in detail: Mr. Orr, Executive Engineer, worked almost entirely ordinary task-work; and Mr. McGregor, Assistant Engineer, worked (b) and (c). In my opinion the ordinary task-work system appears to be the best and safest for very good reasons, and I think two out of three Executive Officers will agree with me. With task-work the workers soon found out that each digger and his

party of carriers had a fixed quantity of earth to cut and carry, for which they got a fixed wage, and no one except the *Sáhib* would alter it. With (a), (b) and (c) we had to compile several sets of tables for computation of the result of their collective working; these workers were then very much at the mercy of the Sub-Overseers and Work Agents, who measured the work done, and by accident or intent working from tables of course induced fraud. In these payment-by-results systems a rate was calculated to provide for dependents and Sunday wage by adding for dependents a percentage to the wage of the digger and carrier *plus* one-eighth for a Sunday on the week's wage, but it was never possible to fix this dependent's wage percentage correctly, because it was not possible on any work to find out the correct percentage of dependents to workers. On certain of our task-work works where we had all dependents mustered and regularly counted twice a day, the dependents on 17 works varied from 14 to 47 per cent. It was, therefore, evident that allowing one rate of percentage for all the piece-work rates was on some works too good an allowance for dependents, while on others it was much too little. This was, I consider a serious defect, as apart from overpaying some, I fear many families with a large number of dependents must have suffered. We also discovered towards the end that some of the men workers left their wives and children on a task-work payment work, and went themselves to a work where piece-work was going on, and so secured the dependents' percentage with their wage while their dependents were also being paid elsewhere. It was not possible on large works to sort out single men in gangs, and arrange a special rate for them. The two systems were carried on simultaneously in the Gurgáon District only. Delhi was worked with limited and unlimited piece-work. Rohtak worked the gang task work system, while Hissár and Karnál were worked with task-work payments.

32. Yes, I am fully convinced that a system of payment by results is quite unsuited to conditions of actual famine. It is capable of being abused by fraudulent practices all round; but worse than all, there is no certainty whatever with it that the dependents for whom it provides are benefited by it. In fact I fear the contrary, for among the lowest classes the man secured the earnings of his party, as a matter of right, and let his children starve. For actual famine conditions I would use only the task-work system of payments, where every man, woman and child was mustered twice daily, paid individually and so were often seen and their physical condition noted. This was most important with children, as on works where payment by results existed the children and dependents were not seen or dealt with individually, to their benefit and salvation, as we did with them on works with task-work payments. Under no conditions of famine would I advocate a system of payment by results. There was a good deal said about maintaining the self-respect of the people and preventing demoralisation by allowing the

parents to earn enough to feed themselves and their children. I am of opinion this did not exist in practice excepting among Rangars, who could not help themselves; I saw hundreds of women on the works bedecked with jewels and men with good clothing and trinkets round their necks working alongside of the really half-clothed distressed ones. They could not resist the fact that by toiling on the works, no matter with whom or among whom (as a matter of fact the various castes were all kept separate), that when the evening came they had earned 18 to 24 pice. It was the pice, real money, that induced them to forego idling all day in the village; for there was no agricultural work of any kind to be done then. Had the people been paid with grain, or food, there would, I am quite certain, have been a considerable difference in the attendance on relief works.

33. The task exacted varied very considerably, as the soil to be excavated varied from pure sand and silt to block *kunkur* and sun-baked clay. For new comers and weakly ones there were special tasks and gangs maintained to whom a suitable task was set; the rest all worked the same task for the same soil. The tasks were arrived at by actual tests, and were set by the Public Works Department, with great care; during June and July the condition of the people was very carefully watched, and whenever found necessary the task was slightly reduced. The people were allowed then to work during the early hours of the morning and evening, and also during the night when possible. There was no allowance made for the distance workers came from, as by far the larger number lived in camp on the works.

34. My experience and belief is that the scale of wages adopted was adequate; and if fully utilized by the workers in buying good food the result was undoubtedly beneficial. There was no direct evidence of the workers saving money; but there was no doubt of the men having money with them, as in several instances it was found, and I personally saw, a rupee tendered for purchases made. Copper coin was obtained freely from baniás of adjacent villages, but not from the works baniás; the people stuck to their village baniás as they could purchase any rubbish from them cheaply, which was not permitted in the shops on the works.

35. Yes. A minimum wage was given on Sunday to all who mustered in camp in the morning and evening; there was no work on Sunday anywhere. On limited and unlimited piece-work the workers had to earn the Sunday's wage during the week. I prefer the minimum wage.

36. I do not consider the minimum wage too high, nor would I permit fining down to the penal wage. Where short work was done the gangs were carefully examined and watched, and if short work was found due to physical inability they were removed to lighter work till better; or the task was eased for a while. If short work was wilfully done then the gang had a week's warning, and was turned

off the work if it did not improve. I do not remember any gang being expelled, as this matter of fining for short work was most carefully attended to by officers themselves.

37. The minimum wage was, when necessary, employed at the outset, and no other.

38. The general custom was bi-weekly payments, although on some works payments were made daily. I should prefer only daily payments; as accumulated payments put too much money at one time into the hands of a class of people such as kamins and village menials who, as a rule, are quite unused to handling money, the result being, as I noticed, that the thrifty denied themselves and their dependents actual necessities, with the object of saving a little money, while the thriftless indulged at once in sweetmeats and other luxuries, and had to go without food eventually for a day until next payment.

39. New comers on our works fell in with the others for payments almost immediately; sometimes they used to be helped for a day or two with rations by the Officer in charge. There was, certainly, no credit on our works from baniás to workers. I cannot say what their relations with their own village baniás were with whom they exclusively dealt.

40. Payment was made to every individual man, woman, child and infant on task-work. On other systems payment was made in the presence of all to a selected head of the gang, or to the man of the family. I prefer the first, because I think it is the correctly safe system.

41. I cannot answer this question fully for want of original documents, but, from all I know, we made our people work up to the full wage by all possible means, and they did it. We did not keep people on the penal wage at any time.

42. We worked some of the payment-by-results systems described in paragraphs 208—212, Famine Commission Report, 1898, with the addition of the gang task-work system.

43. The maximum wage was 20 chhittáks of grain, usually *bejar*. Children were paid the fixed grain equivalent direct, on task-work; and by a percentage added to their parents' earnings on the payment-by-results system. Weakly persons were put into light labour gangs till they improved, when they joined ordinary gangs. All weak and emaciated adults and children were especially fed with milk and Mellin's Food at the hospital, until they recovered. I prefer paying for all dependents direct by task-work the minimum wage, because they can then be regularly inspected, and cases of neglect can be promptly checked.

44. No contractors were employed on our works; the building of huts, repairs of tools, digging of wells, carriage and distribution of water, etc., etc., was all done by famine labour.

45. Entrance registers, gang registers and muster rolls were also kept on works where the payment-by-results system worked, so that task-work could be introduced at any time.

46. The food price scale, for the calculation of wages, was fixed by the Deputy Commissioner; and the tahsil *nirikh* was regularly sent to each work from the nearest tahsil, countersigned by the Tahsildár. It was regularly posted at each shop. The wages were fixed mostly on *bejar*, occasionally on gram. Small variations in prices were not neglected, but a special table was computed to meet this. For instance, with a grain wage of .5 *chhittáks*, and the grain rate at $13\frac{1}{2}$ seers per rupee, the cash wage comes to 4.44 pice; if the 0.44 pice is neglected the worker gets $13\frac{1}{2}$ *chhittáks* instead of 15 *chhittáks*, which is short; so he is given 5 pice, which gets him a little more than 15 *chhittáks*.

47. This question is at once answered by referring to Appendix D, XIV of the North-West Provinces Famine Code, as we worked almost entirely by those Departmental instructions.

48. Wages were raised or lowered under orders of Local Government, tasks were left to Public Works Department. The Commissioner, so far as I know, acted strictly within the powers given him by Punjab Famine Code. I am not aware of any of his orders having been overruled.

51. We had no drafting of the kind referred to in this question.

90. I was employed as Superintending Engineer in the famine of 1896-97, while it lasted in the same districts that I am reporting on now; I did not notice much difference of behaviour in this last famine, except that I think they lost heart very much over this second stroke, as it came so near the last one, and they rushed for relief at once when they expected scarcity.

91. I do not think that up till April 1900 half the people on the works had entirely exhausted their private resources.

92. I consider the tests of the Code, if strictly carried out, as sufficient to deter a good many; but there were some on our works, I think, who accepted the conditions as simple labour, (a) to earn money in pice; (b) because there was absolutely nothing else for them to do; and (c) the ennui of the two-thirds empty village was too much for them, so they joined their needy friends on relief works.

93. I do consider a judicious method of selection for admission to relief works as very necessary. The Commissioner introduced this with good results.

96. The water supply at all our works and camps was both sufficient and above suspicion. It was most carefully disinfected, guarded and distributed. Permanganate of potash was used, and also quick-lime, the latter being an easier and quicker acting disinfectant. All wells were disinfected once a week.

97. We began with a selected piece of open ground, under charge of a regular sanitary establishment, but the Sanitary Commissioner proposed that enclosures, as latrines, which the people avoided and went anywhere, giving a lot of trouble. When caught people were invariably fined for breaches of sanitary rules.

98. The grain shops in the works were thoroughly inspected, and well managed, but the people had no dealings with them. They used to go off on Sundays, after first muster, seven and ten miles to their villages, where they purchased cheap, from their village banáís, any rotten grain or rubbish he could sell them, and consumed this in the week. So long as this practice is permitted in famine relief camps, and relief workers are allowed to live in their villages and come to and fro to work, so long will it be absolutely impossible to maintain a guard against cholera among famine people.

104. I came to learn, from the Station Master of Delhi, that the Rájputáná-Malwa Railway could not provide rolling stock enough to take away the grain consigned to them from the North-West Provinces. I also learnt that all grain to Gurgaon was being carted from Delhi. I reported all this to the Commissioner, who took action in the matter. Had the Southern Punjab Railway not been working in supplying Rohtak and the northern portion of the Hissár District, I think there would have been some difficulty in the way of supplies.

108. The only departure from the rules of the Punjab Famine Code I can remember was with reference to Standing Order No. 11, in which the setting and altering of tasks was left to Civil officers, with the concurrence of the Commissioner and Deputy Commissioner; however, instead of being fixed by them it was relegated to Public Works Department officers. The tasks set were always stated in the weekly report to Commissioner and Deputy Commissioner.

109. Staff Corps Officers were employed as Inspecting Officers directly under the Superintending Engineer; and did excellent service. Non-commissioned Officers and men of the Native Army were also employed as Officers in charge of works, Work Agents, Jamadárs in charge of water supply and sanitary arrangements, Jamadárs on works for order and discipline; they all did very well, and I would strongly recommend their employment as such in future. I can suggest no other source from which supervising officers and men can be drawn than the Native Army. Their sympathy with and kindness to the people was quite extraordinary, and resulted in the people having more confidence in the army men than in any others who had the control and management of them. These army men were also a great check on the fraudulent and the vicious among both people and subordinates, who, apparently, feared them more than any others employed in supervision.

111. To this question I can only tender an opinion with regard to the effect on (1) the number of people seeking relief, as follows:—

- (a) Task-work will, if properly carried out, help the actually destitute, in the best way possible; and keep away money-makers or at any rate help to detect them.
- (b) The task, if carefully set and judiciously exacted, will do the majority good, and keep away the money-makers.
- (c) The scale of wages is sufficient and effective to a great extent.
- (d) The mode of calculating fines is quite effective; and need not be enforced at all if the people are properly supervised and carefully worked.
- (e) The distance test is not necessary if residence in camp is insisted on for all workers, which will be most effective in keeping away money-makers. I cannot recommend the drafting to distant works under any but the worst conditions of want of work and supplies in the district.

Mr. C. W. Loxton.

Answers of Mr. C. W. Loxton, Assistant Commissioner, Fatehjang, to the questions of the Indian Famine Commission.

6. Proof of necessity was required by compliance with tests. Test works under local bodies were first opened and converted into regular famine works later as necessity arose. For example: in the Umballa District there was no doubt great distress owing to failure of crops and death of cattle, but the distress was not so severe as to induce people to submit to the test imposed. The test works opened there never attracted people in large numbers and it was never found necessary to convert them into regular famine works.

10. In the Delhi Division of the Punjab, to which my experience of famine was confined, the relief works were directly managed by the Public Works Department, subject to the control of the Commissioner of the Division. These works were large public works, and my opinion is that small village works would not have answered the required purpose. It must always be difficult to exercise efficient supervision and control over small works. Even in the case of large works it needed constant supervision to ensure that the workers received the full wage allowed them, and this would be ten times more difficult in the case of small village works.

15. The works started in particular localities were those which appeared most suited to the circumstances, and which were likely to be of most future use. In the Delhi District, where the famine was never very severe, the work undertaken was the Delhi Agra Chord Railway. In the Gurgaon District the workers were employed in the completion of the *bunds* which are of such use in the hilly tracts of that district; there was also one tank, and the Rewari-Phulera Railway earthwork, which was carried forward into the Native States which adjoin the Gurgaon District. These works were under the executive management of a Public Works Department Officer, the Executive Engineer of Delhi, and were inspected by Inspecting Officers on special duty, and also by the District authorities. They were usually first opened as test works and afterwards converted into famine relief works as the need arose. Each work was in the immediate charge of a Famine Naib Tahsildar, an officer lent from the Civil Department for the purpose.

22. Each separate charge was entrusted to a Famine Naib Tahsildar. Under him were sufficient clerks to do the office work which arose in connection with the charge. Each group of gangs was entrusted to a Moharrir, whose duty it was to keep the daily muster roll. To supervise and measure the work one or more sub-overseers of the Public Works Department were employed, who were under the orders of the Naib

Tahsildar. Havildars and sopoys were also lent from the Punjab Army and employed on the works in various capacities, such as camp jamadár, "gangers," etc. There was the necessary staff of jamadars, sweepers, water-carriers, etc., to look after the wells, the water supply, conservancy arrangements, etc. There was usually a Hospital Assistant on each work with a Compounder to assist him and the necessary menial hospital staff. Before a work started huts made of *sirkis* were provided for those of the workers who wished to live on the works; these were afterwards leaped with mud as a protection. Latrines were prepared at a convenient distance from the camps, and conservancy jamadars were appointed to see that the people made use of them. There was also a staff of sweepers to carry out conservancy arrangements. As to water supply, wells were selected beforehand and disinfected with lime and permanganate of potash. The water was carried to the workers in casks or pots, and the use of *mussaks* and *pakhals* was strictly prohibited on account of the risk of infection. As to food supply shops were opened on each work and, where necessary, separate shops were provided for zamindars and *kamins*. But very often the zamindars had no objection to buying from the same shops as their *kamins*.

There was usually a hospital for each charge, and segregation huts were kept in readiness for the outbreak of any epidemic such as cholera or small-pox. When such an outbreak occurred the Civil Surgeon of the district himself usually visited the work and made the necessary arrangements. On the spot was usually a Hospital Assistant and Compounder.

23. Admission to the works was free to all persons willing to submit to the labour test. It was found in some districts of the Delhi Division that people from the adjoining Native States came flocking on to the works. These were deported to those States as soon as arrangements could be made for their relief near their own homes. Residence on the works was not compulsory, though those people who wished to live on the works were hatted and provided for.

28. The gangs usually numbered about fifty, though sometimes there were as many as seventy in a gang. The gangs were constituted as the local circumstances dictated. Sometimes they were arranged according to caste and sometimes according to village. It was always attempted to make up full gangs and not family parties; but, on the other hand, it was often found convenient to arrange gangs according to villages.

31. The task system was usually first adopted. Later on unlimited piece-work was adopted on some works in order that the work might be finished as quickly as possible. The outturn of work was very materially increased in most cases by the adoption of unlimited piece-work.

(a) The two systems were carried on simultaneously in the same district in some cases; unlimited

piece-work being adopted on those works which it was thought advisable to complete quickly.

(b) I remember one case in which the system of the work generally was the task system, but some Rájpúts were allowed to do piece-work. The reason for this was that they did not bring the female members of their families on to the work and so were allowed, if they did sufficient work, to earn extra wages for their support.

34. When the workers worked according to the task system I think the wages they earned were sufficient for their support, but not unduly liberal. I do not believe that under the task system the workers were able to save upon their earnings except perhaps in the case of large families where all the children received their pice. On the other hand, the wage was, I think, sufficient. People who came on to the works in bad condition rapidly improved (provided, of course, they were in good health). Copper coin circulated freely, the supply being kept up from the baniàs and the nearest tahsil sub-treasury.

39. The question of how often the wages were paid became a matter of local convenience. A daily payment is no doubt the best as far as the convenience of the people themselves is concerned, but on works where there were a large number of workers it was found practically impossible to pay everybody daily. As far as I remember a bi-weekly interval was the longest allowed, and where it was found possible the workers were paid daily.

46. The wages in grain were according to the scale in the Famine Code; as prices varied the number of pice paid to men, women and children was altered under the orders of the Commissioner of the Division. The prices scale was based on that grain which formed the common staple of food in the locality, generally *bejhar* in the Delhi and Gurgáon Districts. Small variations in prices were neglected, the wage being generally fixed in pice.

50. Large works, and not small village works, were the basis of relief in the Delhi and Gurgáon Districts.

80. Generally speaking, Brahmins were employed as cooks. The people on relief were quite willing to take the cooked food; I do not remember any cases of refusal.

94. When the system was unlimited piece-work, I fancy that people came on the works without being actually in great need of relief. But this system was only adopted in some cases as a local measure in order to hasten the completion of useful works. Where the system was task work I think all the workers who submitted to the test were people in actual need of relief.

100. The grain shops were regularly inspected by the Hospital Assistant in charge of the medical arrangements on each work, and at longer intervals by the European Inspecting Officers. It was occasionally found by the latter that the grain was

inferior, but generally speaking, the grain sold was of good quality.

102. At one time during the famine people came on to the works in considerable numbers from the Native States which adjoin the Gurgáon and Karnál Districts. Measures were, however, afterwards taken in the States concerned to provide for relief, and the people for the most part drafted back. The Rewári-Phulera Railway work, which was under the management of the famine officers of the Delhi and Gurgáon Districts, supplied relief to the inhabitants of those Native States through which it was in part constructed. It was, however, recognized as a general principle that the States were bound to make their own arrangements, though as long as other arrangements were not made people from the States were not refused admittance to the works in the adjoining British districts.

111. Officers of the Indian Staff Corps were appointed inspecting officers in the Hissár and Rohtak Districts. Officers of the Native Army were also employed in any minor posts which seemed suited to them, such as camp jamadár, work agent, etc. Non-Commissioned Officers of the British Army were not employed in the Delhi and Gurgáon Districts. I believe that an officer of the Salt Department was appointed inspecting officer in the Karnál District. European overseers not drawn from the army were also employed in some cases.

453

Mr. D. McGregor.

*Answers of Mr. D. McGregor, District Engineer,
Gurgáon, to the questions of the Indian Famine
Commission, 1901.*

3. (a) The average rainfall of this district during the rainy season is as below :—

Gurgáon Tahsil 22·84 inches.

Rewári „ 19 61 „

Palwal „ 21·46 „

Núh „ 22 83 „

Firozpur „ 21·88 „

(b) The actual rainfall during the rainy season of 1899 and the percentage of the average it represented was as below :—

		Actual rainfall <i>Inches.</i>	Percentage of average rainfall. <i>Inches.</i>
Gurgáon Tahsil	.	11·87	49·3
Rewári	„	3·33	43·7
Palwal	„	18 57	86·6
Núh	„	9·70	42·9
Firozpur	„	15·07	73·4

(c) The rains ceased on 15th September 1899.

(d) The distribution of rainfall from June to September as compared with the average was as below :—

MONTHS.	GURGÁON.		REWÁRI.		PALWAL.		NÚH.		FIROZPUR.		REMARKS.
	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	
June	3·51	2·59	5·17	2·20	12·01	1·52	4·83	2 80	7·54	1·75	
July	4·59	8·77	2·00	7·20	4·93	9 05	2 43	8·90	5·48	7·54	
August	2·55	6 64	0·78	6·87	1·47	6·42	1 93	6 64	1·05	7 85	
September	1·22	4 84	0 43	3 34	0·16	4·47	0·51	4·49	1·00	4·74	
TOTAL	11·87	22·84	8 38	19 61	18 57	21·46	9·70	22 83	15 07	21·88	

ANSWERS.

Preliminary action.

7. The number of people wandering through the district. The Kharif of 1899 was a failure. Previous harvests were not good. People began to leave the villages in search of work. Prices were high, and such ordinary works as were opened were becoming overcrowding.

8. Test works in the shape of *kacha* roads were opened, and wages were given according to the McGregor—1.

Punjab Famine Code and the task was slightly raised.

9. (a) Yes.

(b). No.

10. (a) The programme contemplated large public works as the backbone of the relief system.

(b). Yes.

11.

(1) Test works.

(2) Poor-houses.

(3) Kitchens on works.

14. Yes.

15. Labour was the first criterion, and the consolidation of Sohna-Núh road, 6 miles, was taken in hand as an ordinary work under the District Board, and was supervised by the District Engineer.

16. At start the task exacted was 150 cubic feet per digger and two carriers. It was afterwards raised to 225 cubic feet per digger and two carriers. It was then changed, in accordance with the formula contained in Addenda and Corrigenda No. 40 to Punjab Famine Code, for earth-work. For stone-breaking the task set was 7 cubic feet for 18 chhittáks, 5 for 13 and $3\frac{1}{2}$ for 7, but on the inspection of work and complaints by the people the Commissioner reduced it to 5 to 6 cubic feet for 18 chhittáks, 3 to 4 for 13, and $2\frac{1}{2}$ for 7.

The task for earth-work was taken as below irrespective of previous occupation :—

Digger.—In soft soil 200 c. ft.

In medium soil, 150 c. ft.

In hard to stiff soil, 85 to 100 c. ft.

Carrier.—According to lift and lead.

Test Work.

17. Payments were made in strict accordance with the outturn of work. There was a maximum wage, but no minimum wage nor rest-day allowance to dependants, except that two pice were allowed to nursing mothers on test works.

22. (a). Yes.

(b). Establishment—

1 Civil Officer in charge.

1 Camp Clerk.

1 Assistant Camp clerk.

1 Camp Jamadár.

1 Conservancy Jamadár.

1 Water Jamadár.

1 Camp Muharrir.

1 Admission Muharrir.

1 Miscellaneous Muharrir.

Work Muharrirs for each 300 to 400 workers.

1 Cashier for every 2,500 workers.

1 Store-keeper.

1 Assistant Store-keeper.

(c) Huts to accommodate 5,000 people were erected beforehand: separate latrines for males and females on the trench system were constructed 200 yards to leeward of the camp, with a complete conservancy establishment. Wells were first selected by the Civil Surgeon 15 days prior to the opening of the camp. They were cleaned out and treated with permanganate of potash, and wooden covers were put on them with lock and key. A guard was also put in charge of each well. Iron tanks of 400 gallons each were provided with taps. Water was drawn by *charas* and stored in them, from which the water was conveyed in the canisters to the several *praus* distributed along the work, where the water was stored in closed wooden casks with taps, under charge of a Brahman, by whom water was freely distributed to labourers. Where possible, these casks were fitted on to a cart and filled at the well either by a hose or by water drawn from the tank. The carts then went round the work supplying water, carrying two casks. One cart was allowed for every 500 people. Camp residents were allowed to take their water for cooking purposes from the taps of the tanks in the evening. Throughout the continuance of Famine Relief Works the main object aimed at was to prevent labourers and others polluting the water-supply.

(d) Shops on the works were provided beforehand and were stocked with various food-stuff commonly used by the labourers. The food supplies were inspected by the Civil Surgeon before the opening of the camp, and from time to time at his visits to the camp. These shops were also inspected daily by the Civil Officer in charge in conjunction with the Hospital Assistant. As far as possible such articles as melons, cucumbers, etc., were prohibited from being brought to the camps.

(e) Hospital huts were erected, and Civil Surgeon deputed Hospital Assistant with the necessary establishment and other requirements to suit camp of 5,000 people. The Civil Surgeon visited the camp regularly.

23. Admission to works was free to all comers. A distance test was introduced, and consisted of 1 per cent. more work being given to those living within a radius of $2\frac{1}{2}$ miles. Those coming from beyond this radius had the usual task.

24. The large public works capable of entertaining two charges of 5,000 persons each is able to serve an area of about 280 square miles, and a population of 160,000 souls. Applicants for relief can from an average distance of about 8 to 9 miles.

25. The Public Works Department Officers were not subordinate in all matters to Civil authorities. The Executive Engineer and Sub-Division Officers took orders from the Commissioner and Deputy Commissioner regarding scale of wages, tax and opening out of works and appointment of Civil Officers in charge of works, but the Civil Officer

in charge of camps were under Public Works Department.

26. (a) Yes. He was taken generally from amongst selected Kánúngos, and was allowed Rs. 50 per mensem, and in some special cases for good work an extra allowance was made. He was entirely subordinate to Public Works Department local representatives.

(b). Yes.

27. Tasks were prescribed for the different soils, sand, medium and hard, and the Civil Officer, along with the local Public Works Department Officer, could only alter the tasks if they were assured that the labourers could not or would not fulfil their prescribed tasks in the different soils. These were checked from time to time by the Sub-Divisional Officer and other supervising establishment.

28. The people of each village were allowed to make up their gangs in family and caste parties. Each gang consisted of from 50 to 80 labourers under a mate selected from among the number. These arrangements worked satisfactorily.

29. The classification of labourers was—(i) Diggers, (ii) Carriers, (iii) Working children, (v) Light-work gangs, and (v) Non-working children. The only difference between this classification and that of paragraph 445 of the Report of the Famine Commission for 1898, is in class (iv), gratuitous relief not being necessary, and being substituted by light work. This is from the point of view of economy.

30. Experience led to the consideration that a distinction should be drawn in classification and wages of men and women. The distinction was that when a woman did two-thirds of a man's task as a digger she earned the digger's full wage, but this was altered by Addenda and Corrigenda No. 43 to the Punjab Famine Code to half the task of a digger, and she received the carrier's wage.

(b) This system reduced the expenditure, but led to numerous complaints, as there were numbers of women on the works who were quite capable of fulfilling the digger's task, but they were debarred to do so according to the above circular.

31. (a) The Code system of task was adopted from the outset, but later on a system of payment by results was adopted.

(b) No.

32. Yes, especially at Narnaul, where the condition of the people seeking work was below par, and necessitated every allowance being made for their condition.

33. The task exacted at the outset was that laid down in the Punjab Famine Code, i.e., 225 cubic feet, but was modified in accordance with the Addenda and Corrigenda to the Punjab Famine Code, Appendix B. Full task was demanded from all except those found to be in weakly condition, who were put into light gangs and given such task as suited their physical condition. No allowance was made for dis-

tance, and those coming from within a radius of about three miles had to do 15 per cent. more than those coming beyond that distance.

(b) No.

34.—(a). The scale of wages was found to be adequate.

(b). It was found that the condition of people who came on to the works greatly improved after their being a short time on works.

(c). From enquiries and experience it was evident that those on the limited piece-work system could not save anything out of their earnings, but on the unlimited piece-work system the professional labourers were able to save somewhat.

(d). Copper coins did return freely to camp banías. Civil Officers in charge of works had occasion from time to time to exchange their silver for copper coins at the banías so as to distribute wages.

35. On the limited piece-work system (famine work) those who lived in camp were given rest day wage (minimum wage). It is necessary on test works. It was not given at first, and the people had to subsist on the six-day earnings, and on the seventh day they had very little to subsist on, hence even on test works the rest-day wage is essential.

36. Yes. On the task work system the fines for short work should certainly be lowered down to the penal wage, otherwise the test fails to accomplish what it is supposed to do. In fact, it would be even advisable to pay only by results.

37.—(a). At the outset minimum wage was tried, but it was found that it had a tendency to induce number of labourers to do short work, consequently the system was changed and the people were fined for short work which went even lower than the penal wage. This had the desired effect of inducing the people to give better results.

(b). No.

38. Payments were made bi-weekly on all the works except on Rewári-Phulera Railway, where they were made daily. Bi-weekly payments worked satisfactorily. The reason for paying daily only on one work was on account of there being a large number of workers from Native States to, whom leniency was desirable.

39. The new comers on works were not paid daily but bi-weekly on all works except Rewári-Phulera Railway, but they should be paid daily for the first two weeks, as numbers came on to the works without so much as would purchase them a meal, and where there was any difficulty for the workers to obtain grain, a system of giving vouchers to them for the actual amount due for the work done was tried. By presenting these vouchers to the camp banías they received what they wanted.

40. Payments were made to the individuals and heads of families. Both systems worked well.

41.

42. The system adopted in the Gurgáon Sub-Division may be considered a limited piece-work

system in which the task was fixed and the payment was made by results.

43. The maximum wages were the equivalents in money of 18, 13 and 7 *ehhittaks* per digger, carrier and working child, respectively, of the cheapest grain selling at the time. Children were fed at the camp kitchens. Weakly people, who were unable to fulfil the full task, were put into separate gangs, and a suitable task was given to them for which they received the maximum wage. This was a system of piece-work at favourable rate, and is preferable to task-work with a minimum wage.

44. No.

45. Yes. Muster rolls were kept up.

46. (a). The scale of prices was changed from time to time on receipt of a *nirkhnama* from the Tehsildar.

(b). It was mainly based on *bejhar*, which is a mixture of barley and gram.

(c). Fractions of pies in calculation were neglected.

47. Information was first given to villages within a radius of about ten miles of the selected site that a Relief Work was to be opened. On the people arriving at the camp they were gathered together in the inclosure set aside for classifying them into gangs and divided into village parties. They were then made up into gangs of 50, and allowed to select their own mate. Each gang consisted of 17 diggers and 34 carriers. The classification was carried out by the Civil Officer and Admission Muharrir. On forming up the gangs their dependents were mustered behind them, and children under seven were fed from the camp kitchen in an enclosure.

Tools and plant.

A store was opened out which was stocked with *pharwas*, baskets, pick-axes and all other necessary requirements for a camp of 5,000 workers. As the gangs were completed they received a voucher from the Admission Muharrir showing the number of the gang and the number of tools to be issued out by the Store-keeper. Each gang had a separate square in the store for stacking their tools after the day's work was done. Three days' work was always marked out in advance and measured up each evening as the gangs completed their work. Labourers were paid their wages every third day on all works, except at Rewári-Phulera Railway, where they were paid daily; and for special work see reply to question 38. Fines were inflicted for conumacy and short work. On the site being selected for a camp, in conjunction with the Civil Surgeon and his approval of the wells, they were cleaned, disinfected, treated with permanganate of potash every third day for 15 days before the occupation of the camp. The wells were covered with a wooden lid which was locked. A *chaukidar* was put on to prevent any one drawing water, with the exception of those entertained for the purpose. On most works there were iron tanks into which the water used to flow. From this tank the water was taken by tin

canisters and stored in wooden casks provided with locks and taps, which were placed at drinking stations (*piaus*) at suitable distances apart along the work. Such casks were also supplied and placed at convenient places in the camp. These casks were scoured out every other day with a solution of permanganate of potash. Huts for hospital were erected in accordance with the Civil Surgeon's design. All arrangements regarding hospital equipment were left with the Civil Surgeon, who in all cases provided for all medical requirements.

48. (a). The tasks and wages were stiffened or relaxed under orders of the Commissioner.

(b). Yes; but most of the orders were issued by the Commissioner to the Deputy Commissioner, who communicated the same to the Public Works Department Officers.

(c). Action, if any, taken in anticipation of sanction was never overruled.

49.

58. (a). Yes, namely Meos, Ahirs, Játs, Gujars, Rájputs, Ranghars and Khanzáds.

(b). No.

(c). They came on to Relief Works when the famine became severe.

59.

61. No.

72. Five camp kitchens were opened before the rains broke.

(b). *Nil*.

(c). Camp kitchens served only the dependents of workers.

73. The minimum ration laid down in the Punjab Famine Code was allowed in the kitchens. Meals were distributed twice a day at fixed hours. Dependents were compelled to eat in the enclosures made for the purpose.

75. On works only to dependents of workers.

78. (a) In cash.

(b). Weekly.

(c). At homes of recipients.

80. (a) Brahmans were employed as cooks.

(b). No reluctance was ever shown by people to take food cooked by them.

81. Each camp kitchen had a Superintendent who was responsible that the correct number of rations was indented for daily. This indent was submitted to the officer in charge, who gave orders for supplies accordingly. The raw material was weighed, and when cooked it was inspected by the Civil Officer in charge of the camp. The food was also inspected by the Medical Officer in charge of the camp. The Civil Surgeon, who visited the camps from time to time, inspected and tested the food and its weight. The Public Works Department Officers used to almost daily inspect and test the food.

82. No.

91. As far as the district is concerned, people in receipt of relief were menials belonging to neighbouring classes, with a small percentage of cultivators. There were also a large number of emigrants from surrounding Native States.

92. Yes, because the famine was very much more severe than any of the previous ones, and affected a large portion of the district area.

94. Yes.

95. Test works with a good task are sufficient to keep people off works who can otherwise subsist without coming on to work, but a system might be adopted by which it may be known what people would most likely require relief. On the first appearance of scarcity lists should be prepared showing—(1) zamindárs able to tide over famine for a year, (2) for six months, (3) for three months, (4) for *kamíns*, and (5) for old and infirm. These lists might be kept up by the patwári, and the lambardárs should be held responsible for their correctness. These should be revised every six months. The Tahsildar and Revenue Extra Assistant Commissioner should, at their inspection of the village, see that these lists are properly kept up.

96. The registers of births and deaths of rural circles are kept by Police and those of Municipal towns by the Municipal Committees.

98. There was no excessive mortality in any of the camps to disease caused by the defective or insufficient water-supply. Permanganate of potash was freely used to disinfect all sources of water supply twice a week. Also wells within a radius of five miles of each were treated with potash permanganate, and it is evident that the exceptional freedom from cholera of all camps was due to the care of water supply.

99. (a). As regards sanitation of camps, instructions laid down in the Punjab Famine Code were strictly adhered to. The latrines were invariably on the trench system, and they were always situated 200 yards to leeward of the camps. There were special latrines placed near the camps for the use of people taking sick at night. There were segregation camps for contagious diseases. When cholera appeared in the vicinity of the district observation camps were opened for new comers where they were kept for five days before being permitted to the main camp. The new comers were also allotted work a good distance apart from the old labourers. The sanitary arrangements were under the Conservancy Jamadár and supervised by the Civil Officers in charge of the camp and the Hospital Assistant. All arrangements were carefully supervised by the Sub-Divisional Officer and his Assistants. The sanitary arrangements of the camp were inspected from time to time by the Civil Surgeon, and any defects noticed by him were rectified by the Sub-Divisional Officer on the spot.

(b). At poor-houses sanitary precautions were most rigidly enforced. The latrines were on the

dry-earth and removal system. Their source of water supply was most carefully protected, the well being treated with permanganate of potash twice a week. On the occurrence of cholera in the district all new comers were accommodated in a small camp, a fair distance from the poor-house enclosure till such time it was considered safe to allow them into the poor-house. The water for the inmates of the poor-house was boiled and aerated by filtration. The sanitary arrangements were supervised by the Superintendents of the poor-houses and the Assistant Surgeon.

(c). Same as (a).

100. The grain shops were regularly inspected on the works from time to time by Inspecting Officers and the Civil Surgeon. The grain shops were regularly inspected by the Hospital Assistants of famine camps, as also by the Civil Surgeon at each of his visits. On one occasion unwholesome grain was found and the vendor punished. On several occasions inferior food-stuffs were found, and this was brought to the notice of the Sub-Divisional Officer, who always meted out the necessary punishment.

102. Yes.

107. No.

109. (a). No.

(b). Yes.

(c). Yes.

110. The provisions of the Famine Code were adhered to as far as practicable.

111. No.

112. Non-official agency was used to a small extent, and was successful.

(b). Yes.

113. (a). Changes were made in the task, scale of wages, system of work. The only effect from these changes was in the case of reduction of wages, by which the people left works in large numbers, and when they found the same scale of wages on all works they commenced coming back.

(b). These changes had no unfavourable effect on the death-rate; in fact, those labourers seeking relief who worked in a most emaciated condition, and chiefly from Native States, rapidly improved on the wages given them throughout the continuance of famine relief.

114. No.



MR. MANNERS SMITH, EXECUTIVE ENGINEER, AJMER-MERWÁRA.

The President.—When did you have charge?

A.—In October 1898, I had charge of Ajmer and Merwára. I have been in Rájputána all my service, 20 years; but except in the famine of 1891-92 when I was for six months in Beawar, I have never served in Ajmer-Merwára before. We had two test-works in Ajmer, from November 1898 to July 1899, and in Merwára we started three tanks and metal collection in November 1898. They were carried out under the Ajmer Code.

Q.—When did distress show itself in 1898-99?

A.—I arrived in October 1898 from furlough, and the first visit I paid to the Commissioner he told me we should have to start relief works in a portion of Ajmer and also in Merwára, nothing was in actual operation. The Commissioner was touring in Merwára, settling where to start works. From November 1898 to July 1899 two works were undertaken in Ajmer. There was no large work in Ajmer. We never had more than 700 to 800 employed daily during the whole year. The North portion of the district was distressed, but the people did not show signs of emaciation. Still they could not have supported themselves without the work.

Q.—On what system were your relief works conducted?

A.—Each gang had its task and they were paid by the result of the work done; but not by piece-work.

Q.—If they only did 75 per cent. of the work you only gave them 75 of the pay?

A.—Yes.

Q.—Had you a minimum wage?

A.—The ordinary wage was the minimum. We paid according to the Famine Code.

1. The people could not earn a proportionate increased wage for increased work, on test-works.

Q.—Had you provision for dependants?

A.—We had no dependants on these tests-works, no provision for children or permission to earn above the ordinary wage, to compensate for that the rest-day wage was given.

Q.—Was there any tendency to be satisfied with the minimum and to do no more work?

A.—Not in the period up to July 1899. They very seldom earned less than the ordinary wage. The digger had to do 90 cubic feet, the carrier 60, with a 100 feet lead. One digger was supposed to be equal to two carriers, or four working children. Therefore to one digger we had one carrier and one child. The latter carried 30 cubic feet with 100 feet lead.

Q.—At that time you had not arrived at the requirements of Mr. Higham's tables?

A.—Our establishment was not adequate to work it out.

Q.—Did that system keep your people in good health?

A.—In very fair condition.

Q.—What had you in Morwára at the same time?

2. A.—Two portions were declared distressed. In Bhim we started first of all repairs to a tank and built a new tank. Then in Jowaja we started a tank at Lotiana, and also stone metal collection. The earthwork task was the same as in Ajmer. For metal-breaking, every digger broke 10 cubic feet, a carrier 5, and a child 2½.

Q.—That was rather high, was it not?

A.—No, they did that. The stone is on the side of the hill. They did not have to collect stone, we had separate people for that. It is trap stone, some soft and some hard.

Q.—They kept in good condition?

A.—Yes, we started early.

Q.—Were they people who ordinarily did that sort of work?

A.—No, they were cultivators, but they were classed as non-professional labourers.

Q.—How many had you on works in Merwára by July 1899?

A.—At the end of that month there were 8,545 in Merwára, but for the works I am talking of now, there were up to the end of March 4,278.

Q.—Were these works conducted on the same principle of piece-work with a minimum wage, which is a Code task, but without provision for dependants?

A.—It was the same in Merwára up to March. The works were then declared scarcity works, and a maximum but no minimum was given. The labourers were allowed to do 25 per cent. in excess of the ordinary task with a proportionate increase of wage in substitution for the Sunday wage to enable them to support dependants.

Q.—It was pure piece-work. You thus had two systems, that and in Ajmer payment by results with a minimum wage?

1. A.—Yes, they remained test-works in Ajmer.

Q.—In Merwára did you employ infirm gangs?

A.—They had the minimum and were not liable to fine.

Q.—What was your organization?

3. A.—The lowest units were the gangs which we arranged by villages. We had family gangs at first; so many diggers and so many carriers and the task was set for them. Though we had muster-rolls by villages, the payment was made to the sub-gang, to the individual. We did not form the people into bodies of 50 till we adopted the North-Western Provinces system in January 1900.

Q.—How many people came from a village on an average?

A.—There might be any number up to 300.

Q.—Had you headmen?

A.—We used to have mates for village gangs, selected, not by the people, but by ourselves.

Q.—After July 1899 the numbers began to rise?

A.—The rains were a failure. We had only 7·97 inches in Ajmer and 4·33 in Merwára. Our average fall is 22 inches.

Q.—What class of people came on works in July?

A.—The labouring classes, *zamindárs*, and *Mers*, the petty agriculturists.

Q.—Were additional works started in August when they came in such large numbers?

A.—We had to keep on starting works in proportion as the numbers came on works.

Q.—Had you a standard beyond which the numbers on a work might not go?

A.—We had, I think 10,000.

Q.—Afterwards you adopted the North-Western Provinces system of charges of 5,000 or 6,000?

A.—I was not in charge then of Merwára.

Q.—Did the people leave their homes and come on to the works?

A.—They came on in villages but they always wanted to go back to their homes at night.

Q.—Had you a particular number of works for supplying a particular area? Did you mark your distressed area into blocks, say, of 200 square miles, and see how many works it would require?

A.—We made out programmes, and different villages were supposed to find employment on different works.

Q.—The people of a village could go to a certain work and not to others?

A.—Yes.

Q.—Am I to understand that every one who came to your works came with a ticket from the Circle Officer?

A.—They were admitted with tickets only up to December 1899. These tickets served a double purpose, that of excluding those not in need of relief, and of sending people of a certain village to a certain work; the latter purpose came later, when the numbers increased after the rains of 1899, because formerly we only had limited areas to deal with and there was no difficulty.

Q.—When did you commence to give gratuitous relief on your works?

A.—The civil authorities began gratuitous relief in March 1899. In Merwára all the feeding of children was done in kitchens, not attached to works, but in village centres.

Q.—Up to what time can you speak for Morwára?

A.—December 1899.

Q.—The system elsewhere has been that where pressure became great and people came on to works, bringing their infirm relations and young children with them, neither of whom could work, gratuitous relief was given by cash doles on the works or cooked food distribution from kitchens attached to works. Had you that system?

A.—Not on our work. The kitchens were civil kitchens and were opened in August 1899.

Q.—How far were they away from works?

A.—Scattered about the district in centres of villages.

Q.—You practically had no dependants relieved on works in Merwára?

A.—No, and in Ajmer we had no departmental work kitchens. But when we started test-works again in Ajmer in September—having closed them in July—we had kitchens close to works, but not under the Public Works Department. They were intended to supply the wants of dependants of those on works and also the villages near. The difference was that in Merwára the kitchens were placed in villages so that the works should not be rushed with children and dependants.

Q.—Was there any change of system in Merwára in October or November?

A.—In November the maximum wage was done away with on scarcity works and the wage of the working children was raised. And in January we started the North-Western Provinces system. We gave a gang a task, limiting the number of the gang. Every member of the gang was paid by the result of the work of the whole gang. We measured the work of the gang but not of the individual. There was no minimum and no maximum, no Sunday wage. The Code wage was the maximum. We also started work kitchens under the Public Works Department. Then we divided the works into "charges," having for each a famine *naib-tahsildár*, a "charge" generally consisting of three works, and each work would hold about 2,000; 6,000 being the number of the total charge. That system lasted to the end of the famine, except that in April the district was declared a famine district and the rest-day wage was given. The same system existed in Ajmer as in Merwára, except that, whereas in the former we had a work kitchen on every camp, in the latter the kitchens were nearly all maintained as civil kitchens.

Q.—What were the numbers in the gangs?

A.—We began by 100, but found that with 50 the liability to fining would be less.

Q.—How did you find the system work?

4. A.—I can only give figures for Ajmer. On one work out of 41 gangs 29 earned the full wage throughout May when distress was greatest. I think that was typical.

Q.—I see that something like 75 per cent. earned the full wage, and for the Code minimum about 10 or 15 per cent. On another work close on 80 per cent. earned full wage and on another 90 per cent. And the *kankar* collection was still better. Eighty or 90 per cent. of the people earned full wage and the balance earned three-quarters of it. Your system was successful?

A.—I think so. The people kept in good condition. We had one work in Kckri where we had to take special measures for relief in March.

Q.—What was your mortality on works?

A.—In Ajmer, from March to August, the worst time, the average death-rate was 444 a month out of a daily average attendance of 27,945. It is a high rate, it rose to 14.5 per mille per month, that is including the work hospitals; and we had cholera in May. I don't know what number of deaths resulted from cholera exactly, but in May 69 deaths were registered in one day on one work. At the time cholera appeared we had four distinct camps on that work. One of these practically disappeared through the people going to their villages. The others we split up into smaller camps, and moved them away from the infected area.

Q.—Did you find any difficulty in moving them on?

A.—None at all.

Q.—Did you by moving them get rid of cholera?

A.—Yes and by taking special precautions about the water-supply.

Q.—What was your subordination on these camps. You had your mates of gangs and *naib tahsildárs* over the charge. Had the latter, or the Public Works subordinate, control of the charge?

A.—The famine *naib tahsildár* was under the Public Works Sub-Divisional Officer, who would have three "charges." The *naib tahsildár* was locally responsible for everything in his charge except technical matters. The local Public Works Sub-Overseer being subordinate to him, except in the arrangement and execution of work. The Public Works Sub-Divisional Officer was subordinate to the Executive Engineer. The Executive Engineer was subordinate to the Commissioner except in technical matters. All estimates and plans would be sent up to the Superintending Engineer for approval before being carried out.

Q.—Would you call tasks and wages technical matters?

A.—No, matters for the Commissioner.

Q.—You found no friction?

A.—No; it worked beautifully.

Q.—Did you find these *naib tahsildárs* trustworthy?

A.—We had three from our own Revenue Department. These were distinctly superior to others.

Q.—Did you find them trustworthy in money matters?

A.—We did not give them control of the money. We had resident cashiers. We had weekly payments till May. When we had these cashiers, they were supplied with money by travelling cashiers and we had daily payments.

Q.—In June you had a very large increase on your works just before the rains?

A.—We had a little rain in the beginning of June. The people thought the rains had begun, but when we had a long break the people got nervous and came rushing on works. In Ajmer the people fell off very rapidly when the rains did come. We had no necessity to stiffen the task to send them away to their villages.

Q.—You have no relief works now?

A.—We closed in September.

Q.—With regard to Merwára, where you have taken me up to December 1899, did things take the same course there in 1900 as in Ajmer?

A.—Except that the distress was greater and the works lasted till October and the people did not leave the works rapidly at the end. The same system was in force and it worked very successfully.

Q.—So taken in time, the intermediate system with provision for dependants and children enables you to deal satisfactorily with acute famine?

A.—I think so.

Q.—You are not in favour of a minimum?

A.—I would never give a minimum.

Q.—Was the water-supply under the Hospital Assistant or the officer in charge?

A.—To each charge there was one Hospital Assistant and he was sanitary officer to the famine *naib tahsildár* and was responsible for the water and sanitary arrangements. He was under the orders of the Special Famine Medical Officer, but in ordinary times he was under the famine *naib tahsildárs*.

Mr. Nicholson.—Had you a system of preparing programmes of famine works?

A.—We had a programme which is submitted yearly to the local administration. The Public Works Department is responsible for the original preparation of it and it goes to the Commissioner, so that both Public Works and Revenue Officers have a say in the matter.

Q.—Then why were so many works found to be impracticable?

A.—Those were mostly irrigation works. In Merwára practically every site has been worked out, and the few left have no profit from a revenue point of view and they interfere with the water rights of existing tanks in the district below, or in neighbouring Native States.

Q.—That difficulty was not appreciated when the programme was originally prepared?

A.—I do not think that Native States knew of these tanks; it was when the work began that they began to make objections.

Q.—What is the reason for the great difference between the digger's task in stone breaking and the carriers'—twelve and five?

2. A.—The carriers' task was very light. The women could do more than five.

Q.—Why was the ticket system stopped?

A.—Because it was thought that famine works should be open to every one who applied for labour.

The President.—That was when you came to a more acute stage?

A.—Yes.

Mr. Nicholson.—But in Merwára the maximum number was never more than 68,000?

A.—The ticket system was of little use then because the place was flooded with immigrants, especially from Jodhpur and Meywar. The former did not come in search of relief as they always go with their cattle down to Malwa. They found no work there and came back, and great numbers got on our works.

Q.—Had you many deserted children or orphans on your works?

A.—They would have gone at once to the civil poorhouses.

Mr. Bourdillon.—For Ajmer the figures supplied to the Commission show a rise in the numbers on relief from November to December 1899. What was the cause?

A.—Increase of distress and foreigners.

Q.—Immediately afterwards they fell again?

A.—The greatest rise in Ajmer was in October, when we had test-works. We reverted to the scarcity system in November and we had a fall.

Q.—There was a rise in mortality in September?

A.—That was the fever. We had fearful mortality after the famine was over over the whole district.

Q.—Had you any village works?

A.—Not in Ajmer. In Merwára they were fairly successful. They drew off 3,000 or 4,000 people before the rains; our object being to send people back to their fields to begin agricultural operations.

Rao Bahádur Syam Sundar Lal.—Is there any scope for village works in Ajmer?

A.—Tanks are played out.

Q.—Is there much room for the sinking of irrigation wells?

A.—I should think there was, but they are not good relief works, because they can only employ a limited number of people, and they require a large establishment to look after the people employed.

Q.—Could not the local agency be utilized?

A.—I should think so.

Q.—Do you think the wages were very easy in the beginning?

A.—I think our test system was much too easy, because we had a minimum and a rest-day wage. Besides our establishment was not in full order.

Q.—Was it the easy wage which proved attractive to the people?

A.—I am sure it was. They were bound to receive the minimum wage and they did not do any work.

The President.—For every two gangs you had a muster clerk. Were they workers?

6. A.—A great many were *banias'* boys, and people who could write Hindi merely for the purpose of writing the muster-roll. And over 10 gangs we had a *muharrir* who had to be able to write English. The mustering clerks were his assistants. For every group of 5,000 or 6,000 people we had—

12 *muharrirs*.

3 Public Works clerks.

3 clerks for registering new-comers.

3 clerks for the famine *naib tahsildár*.

3 cashiers.

3 Public Works subordinates, and the *naib tahsildár*, making 28 in all for the separated charges.

Q.—Were you much troubled with immigrants?

7. A.—We had a great number from Kishengarh, because a portion of the road to Deoli lies through their territory, and later we had them from Jeypur. Later on Darbárs made arrangements for taking the immigrants away. The immigrants considerably affected the number on our works and the mortality. We have no exact figures, but I should think we had at least 20 per cent. of foreigners on our works in Ajmer where we had to have separate camps for them.

[*The witness subsequently added :—*]

1 The answer as reported is incorrect. On "test" works in Ajmer from November 1898 to July 1899 we had a minimum wage, *viz.* :—

For "diggers" and "carriers" the equivalent of ... 12 *chhataks*.

For "working children" ... 7 "

and fines for short work were limited to this minimum. There was no maximum wage of 25 per cent. in excess of standard wage for proportionate increase of task, but a rest-day wage was given.

2 I regret I have made a mistake in the "diggers;" task for breaking metal, both in my written answers to the questions of the Famine Commission and in my evidence.

The tasks were—

1 "Digger" broke and stacked at quarry	...	...	10 cubic feet.
1 "Carrier"	...	...	5 ditto.
1 "Working child"	...	...	2½ ditto.

The tasks were fixed by the Commissioner in January 1899.

In fixing tasks, one digger was considered equivalent to two carriers or four working children, but for this class of work I still consider the "Carriers'" task was too light.

3 The answer as reported is not quite clear: we had at first gangs arranged by villages, each village gang being mustered separately. The tasks were calculated for sub-gangs, formed as far as possible by families, *viz.*, three or four diggers with as many carriers as were required by the lead; and payments were made to these sub-gangs, individually, according to the result of their work. The "digger" was the unit. We did not form the labour into gangs of 100 and later of 50, and treat the gang as the unit, till we adopted the North-Western Provinces system in January 1900.

4 The reply should be—

I can only give figures for Ajmer. The result on some typical works, during May, the time when distress was greatest, is given in my answer to No. 41 of the questions drawn up by the Famine Commission.

5 The reply should be—

We did not give them control of money. We had bi-weekly payments till May 1900, payments being made by travelling cashiers, who had given a security, and who went from the divisional or sub-divisional offices to make payments. When daily payments were introduced, resident cashiers were posted to each work, who were kept in funds by travelling cashiers.

6 The complete staff for a "charge," consisting of three separate works, is given in my answer to No. 22 of the questions drawn up by the Famine Commission. As reported in my evidence, it is not complete.

7 The reply should be—

In Ajmer we had a great number at first from Marwar; and throughout the famine from Kishengarh, on doubling the Rájputána-Malwa Railway, Kekri-Nasirabad Railway, and metal collection, Deoli Road, as portion of our work on these lay in Kishengarh territory; on the Deoli Road we also had immigrants from Jeypore. In Merwára, besides immigrants from Marwar, we had at one time 20,000 from Meywar, for whom we had to have separate camps.

Later on the Darbárs made arrangements for taking the immigrants away. The immigrants considerably affected the numbers on our works and the mortality. We have no exact figures, but I should think at least 15 per cent. in Merwára and 9 per cent. in Ajmer were foreigners.

Mr. F. St. G. Manners-Smith.

Answers by Mr. F. St. G. Manners-Smith, Executive Engineer, Ajmer Provincial Division, to questions drawn up by the Famine Commission.

INTRODUCTORY.

Since November 1898 there had been partial famine in Merwara and in the northern portion of Ajmer.

1. In 1897-98 *Kharif* harvest was average; *Rabi* harvest not so good as was anticipated. In 1898-99 *Kharif* crops were damaged; *Rabi* cultivation was very insignificant.

3. (a) 22 inches.

(b) Ajmer 7·97 inches or 86 per cent. of average.

(c) Merwara 4·33 inches or 20 per cent. of average.

	AJMER.		MERWARA.	
	1899.	Average from 1894-98.	1899.	Average from 1894-98.
(d) June	3·76	3·16	2·00	3·44
July	3·58	7·82	1·20	7·47
August	·04	5·24	·06	4·85
September	·59	2·25	1·07	2·73

PRELIMINARY ACTION.

8. *In Ajmer*.—Two Test Works (tank repairs) were kept open from November 1898 to July 1899, in the northern portion of the district, and in September 1899, when Test Works were reopened, metal collection and tank repairs were started.

In Merwara.—Tank work and metal collection were started in November 1898 in the area where distress was acute.

Before admission to works all labourers had to produce a ticket from the Civil Officer or Patwáris of their villages as a proof of their being in need of relief, in addition to accepting the work tests. The ticket system was stopped in Ajmer in September 1899.

9. (a) A Famine programme, for both Districts, with a number of sanctioned estimates for located works, existed, but many of the works were found unsuitable, or in the case of new tanks impossible, as they interfered with the water rights of other tanks below. The programmes had therefore to be altered and supplemented by new projects to suit requirements, and to provide sufficient labour for the very large numbers who came on the works. Many of the works undertaken were consequently not actually located before the famine, and a special establishment was employed during the famine to prepare surveys and estimates for these additional works. The estimates were in most cases sanctioned after the works had been taken up, as this establishment was insufficient to keep pace with the rush of labour.

(b) No, the necessary establishment was not included in the programme, nor were lists of qualified candidates kept up.

10. Both large and small Departmental Works. There was no programme of village works.

11. *Ajmer*.—

- (1) Test Works, November 1898 to July 1899.
- (2) Test Works, September 1899.
- (3) Organisation of private charity in Ajmer and elsewhere, September 1899.
- (4) Kitchens,
Forwarding Depôts,
Poor-house,
Village Relief, } October 1899.
- (5) Scarcity works,
Opening Government
Forests, } November 1899.

Merwara.—

- (1) Concessions in Government Forests, October 1898.
- (2) Test Works, November 1898.
- (3) Scarcity Works, March 1899.
- (4) Village relief, June 1899.
- (5) Opening of Forests to free grazing, July 1899.
- (6) Kitchens, August 1899.
- (7) Organisation of private
Charity.
Beawar and eharitable
poor-house. } September 1899.
- (8) Forwarding Depôts, December 1899.
- (9) Beawar poor-house, February 1900.

14. Irrigation wells can be made everywhere.

15. Labour was not the only criterion of need for relief at first, as the ticket system was in force.

Test Works were first undertaken, conducted under the supervision and management of the Public Works Department in accordance with the Famine Code. No works under District or Local Boards were carried out except one small work which the Beawar Municipality started in Merwara.

16. The tasks on Test Works were fixed by Appendix V (a) and (b) of the Ajmer Famine Code, for labourers classed as "able-bodied persons accustomed to labour, but not to labour of the kind required on ordinary works."

The tasks were :—

EARTHWORK.

Diggers' Task—

	C. ft.
Black or red soil	90
Soft Mooram	60
Average Mooram	45
Hard Mooram	30
<i>Carriers' Task</i>	60 c. ft. for 100 ft. load.

	C. ft.
1 Digger broke and stacked at quarry . . .	12
1 Carrier do. do. do. . . .	5
1 Working child do. do. . . .	2½

For quarrying and feeding the breakers with stone—

	C. ft.
1 Digger supplied	50
1 Carrier do.	25
1 Working child	12

For *Kankar Collection* the task varied with the quarries—

	C. ft.
1 Digger quarried, cleaned and stacked . . .	10 to 7
1 Carrier do. do. do.	5 to 3½
1 Working child do. do.	2½ to 1½

In calculating tasks one “digger” was considered equal to two “carriers” or four “working children.”

17. On *Test Works* payments were made by results, subject to a limit of minimum wage; the ordinary wage was the maximum; a rest day allowance was given, but no allowance to dependants. On *Scarcity Works* payments were by results *without* a minimum; a maximum wage allowance of 25 per cent. in excess for proportionate increase of task was given. No rest day allowance was given; but an allowance was given to dependants.

In October 1899 the maximum wage was done away with; and in April 1900, when the district was declared a “Famine” District, a minimum wage on rest days was given.

18. The continued demand for labour.

LARGE PUBLIC WORKS.

19. In September 1899 every large Departmental Work, where labour could be concentrated, was taken up; but as the rush of labour was great and new projects were not ready, small Departmental Works had also to be undertaken.

20. The works were Departmental Works in the immediate charge of the Public Works Department, under the Commissioner’s control, and in technical matters under the Superintending Engineer. The provision of the establishment required was attended with great difficulty, and it was not ready in advance. We had to keep on recruiting and increasing establishment as works were opened and as labour increased. There was no delay in opening the works, and sufficient tools were always available.

21. Works were divided into “charges” from January 1900, when the North-Western Provinces Code system was adopted.

The charge consisted as a rule of three separate works with about 2,000 labourers on each, or a maximum of 6,500; but this maximum was not infrequently exceeded, in which case, if it was possible, labour was drafted to another charge.

22. Yes.

The complete staff for a charge was—

No.	Officials.	Monthly salary.	REMARKS.
1	Famine Naib-Tahsildar in charge.	R60+15 horse allowance.	
3	Public Works Subordinates.	R30 to 60+15 horse allowance.	One for each work in the charge.
3	Cashiers . . .	R30 to 40 . . .	One for each work in the charge.
1	Hospital Assistant .	R15 horse allowance.	In charge of Hospitals at each work in the "charge" and inspecting each on alternate days.
3	Clerks for Famine Naib-Tahsildars.	R15 . . .	One at each work.
3	Receiving clerks .	R10 . . .	For receiving new comers, etc., at each work.
3	Clerks for Public Works Subordinates.	R15 . . .	For keeping daily reports, etc., one at each work.
12	Meharris . . .	R10 . . .	One to ten gangs.
55	Muster clerks .	Annas 3 per diem .	One for every two gangs.
23	Bhumias . . .	H5 . . .	Four in charge of treasure at each camp, and 2 as poons, and 9 as Conservancy, Bazar, and water mates.
3	Kitchen Superintendents.	R10 to 12 . . .	One for each work kitchen.
3	Hospital clerks .	R10 . . .	One for each work hospital.
3	Store clerks . . .	R6 . . .	One for each store godown.

Chowkidars and sweepers were employed as considered necessary by the Famine Naib-Tahsildar, receiving the wage of their class.

There was no difficulty about hutting, sirkies and bamboos being easily obtained and supplied as required. The rules of the Ajmer Famine Code and later on of the North-Western Provinces Code were followed with regard to conservancy and water-supply. For food supply a Bania was appointed to each work by the Civil authorities, and a Work Hospital with medicines was established at each camp, with a Hospital Assistant to each "charge," under the orders of the Special Famine Medical Officer.

23. In Merwara the ticket system was in force till January 1900, by which time there were 60,000 on the works; in Ajmer there were no tickets after July 1899.

No distance test was enforced, but as Muster Rolls were taken at 7 A.M. in the morning in the hot weather, and 8 A.M. in the cold weather, and again in the evening at 5 P.M., the distance was practically fixed, and all whose homes were not at a reasonable distance had to live on works.

24. In Ajmer the maximum number on works was 50,000; the area of the district is 2,000 square miles, a work of 10,000 would therefore serve one-fifth of the population needing relief, and 400 square miles, as we are never likely to have a famine of greater severity than the last.

In Merwara the maximum number on works was 68,500, the area is 650 square miles; a work of 10,000 would therefore serve about one-seventh of the population needing relief, and 90 square miles.

Excluding immigrants from neighbouring foreign States, labourers had never to go more than 15 miles to find work.

25. The Executive Engineer was directly under the orders of the Commissioner except in purely technical matters.

26. There were Famine Naib-Tahsildars for each charge, appointed by the Commissioner, but placed under the orders of the Executive Engineer. Some of these were appointed from the Naib-Tahsildars of the Revenue Department, others were obtained from the North-Western Provinces and elsewhere. Their pay was Rs 60 per mensem with 15 horse allowance. The local representatives of the Public Works Department were subordinate to the Famine Naib-Tahsildar of their "charge" in all matters except actual arrangement and execution of work.

The Famine Naib-Tahsildar was general supervisor of the works in his "charge," and was responsible for—

- (1) Prompt admission and register of applicants.
- (2) Classification and treatment of workers.
- (3) Provision of shelter.
- (4) Correctness and proper payment of wages.
- (5) Market arrangements and supply of food.
- (6) Adequate supply of good water and proper disinfection of wells.
- (7) Hearing and investigation of complaints.
- (8) Hospital and sanitary arrangements.
- (9) Care of children and infirm persons presenting themselves at the work.
- (10) Prompt submission of accounts.
- (11) Immediate report to Executive Engineer through the Sub-Divisional Officer of the outbreak of any epidemic disease.
- (12) Management of the work kitchen.

The Public Works Subordinates were responsible for—

- (1) Correctness of Muster Rolls.
- (2) Correctness of task fixed for each gang each day.
- (3) Correctness of measurements taken each day, and wage earned by labourers.
- (4) Correctness of daily reports submitted each day.
- (5) Arrangement, distribution of labour on work, and execution of work itself.
- (6) Supply of tools.

The Naib-Tahsildar had every access to measurement books and forms in use, and could be present

when tasks were set out in the morning, and when measurements were taken in the evening if he wished, and abstracts of the Daily Reports showing work executed each day and numbers employed were submitted daily by him; and it was his duty to see that all the orders of Government were carried out as laid down in page 426 of the Report of the Famine Commission of 1898, as shown above.

27. No, the tasks were applied by the Executive Engineer, but the Public Works Department Sub-Divisional Officers or Inspecting Officers could change them, if, for a special reason, it was considered necessary, reporting the fact with their reasons to the Executive Engineer for confirmation, who informed the Commissioner of any important change.

28. Gangs were formed by villages and families as far as possible. At first each gang numbered about 100, but afterwards 50 was the number adopted. Each gang had its own mate, muster clerk, and distinguishing number, its own working area, where it assembled for muster at the time fixed each morning. As far as possible the different classes of labour were distributed in proportion in each gang, but on large works Class E (adult dependants capable of light task) were formed into separate gangs, and not included in the working gangs.

29. From November 1898 to March 1899 the classification and grain equivalent of wage was—

	<i>Equivalent,</i> Chittáks.
Class X, Special (mates)	21
„ Y, Diggers (men)	19
„ Z, Carriers (women)	13
Children 7-12 years	8

From March 1899 to September 1899 the classification and wage scale was—

	<i>Ordinary.</i> Chittáks.	<i>Minimum.</i> Chittáks.
Class A, Special, 2 pice more than Class I.		
Class I, Diggers (men only)	20	12
„ II, Carriers	15	12
„ III, Working children (8-12 years)	8	7
„ IV, Adult dependants capable of light task . . . .	...	12

In September 1899 the age of working children was raised, and labour classified and paid—

	<i>Ordinary minimum.</i> Chittáks.	<i>Chittáks.</i>
Special, 2 pice more than Class I.		
Class I, Diggers (men only)	20	12
„ II, Carriers	16	12
„ III, Working children (10-12 years)	10	8
„ IV, Adult dependants capable of light task . . . .	...	12

with Civil Kitchens for non-working children.

In January 1900 when the North-Western Provinces Code was adopted the classification and wage became—

On Works—

	Ordinary. Chhitáks.	Minimum. Chhitáks.
Class A, Special, 2 pice more than Class B.		12
„ B, Diggers (men only)	19	12
„ C, Carriers (adults and children above 14 years, both sexes)	14	12
„ D, Children between 10-14, both sexes	10	8
„ E, Adult dependants capable of light task		12

Children in arms 1 pice to the mother.

In Kitchens—

	Chhitáks.
Class E, Adult dependants unfit for work	9
„ F, Children 10-14 unfit for work	6
„ G, Children 7-10	4
„ H, Children under 7, but not in arms	3
Later on raised to	4½

The differences in classification with that laid down in Section 445 of Report of Famine Commission were :—

- (a) We had no women “ Diggers. ”
- (b) Age of children in “ Carriers ” class was above 14, instead of 12.
- (c) Age of working children was 10 to 14, instead of 8 to 12.
- (d) Age of non-working children was under 10, instead of under 8.

The differences in wage with that laid down in Section 456 of Report of Famine Commission were :—

	Our Scale. Chhitáks.	Famine Commission's Scale. Chhitáks.
Diggers	19	instead of 20
Carriers	14	„ 15
Working children	10	„ 8
Non-working children (a)	6	„ 7
„ „ (b)	4½	„ 5
	<u>58½</u>	<u>55</u>

The result of the famine proved that the wages we gave, when there was no reduction of 25 per cent., were sufficient, the only class who suffered at times being the “ Carriers,” and I would recommend never less than 15 chhitáks for these.

The other classes came through the famine in fair condition.

The women in this part of India are more industrious than the men, and did more than their allotted share in the gang's task, and not infrequently the stronger ones assisted in digging.

A slight saving was effected by our scale as the grain equivalent of wage was less, but the actual amount cannot be calculated, as it depends on the number in the different classes of labour, a varying quantity.

30. We did not allow women in the "Diggers" class, and in the "Carriers" class we decided that all should receive the same wage irrespective of sex, as they were doing the same work. There was no difficulty caused, on the other hand it simplified the accounts and muster rolls, as there was only one rate of daily wage to enter and check for each class.

We gave the "carriers" the wage allowed for women in this class in the North-Western Provinces Code, and so saved slightly, but as stated above this class was the only one which occasionally showed signs of real distress.

31. Payments were by results from the first, and from September 1899 the task for the gang treated as a "unit" was fixed, and each member of a gang was paid by the result of the work done by the entire gang to which he belonged.

The full ordinary wage was given for full ordinary task, or $12\frac{1}{2}$ per cent. under—

$\frac{2}{3}$ Wage for $\frac{2}{3}$ task ($12\frac{1}{2}$ per cent. over or under).

$\frac{1}{2}$ Wage for $\frac{1}{2}$ task ($12\frac{1}{2}$ per cent. over or under).

No wage was given if less than $12\frac{1}{2}$ per cent. below $\frac{2}{3}$ task was done, the work being measured and added to the next day's task measurement.

On Test Works in Ajmer (from September to October 1900) this system was subject to the provision of a minimum wage, but at no other period was this allowed, and no relief was given to dependants till November, when works were treated as scarcity works.

32. I consider that if started in time, relief can be adequately afforded in case of severe famine by works conducted throughout on a system of payments by results, as noted above.

33. Please see answer to Question 16. No allowance was made for the distance the workers had come.

On the Kekri-Sawar Road to which labour came almost entirely from the Istimrari Estates and neighbouring Native States, and arrived in a most feeble condition, tasks had to be reduced in March 1900 for about a month, till they picked up their strength, and again during the cholera epidemic in May 1900 on the same work the tasks were reduced.

In the Ajmer District on other works the diggers' task for earthwork got more severe as the famine went on, and they were:—

	C. ft.
Sand	200
Light earth mixed with sand	150
Medium earth	110
Hard earth and clay	90
Mooram and gravel	60
Rocky soil	30

34. Adequate on the whole, when the 25 per cent. deduction laid down in Section 105 A, Chapter VI, North-Western Provinces Famine Code, was not enforced. As already stated the wage of the "carriers" might have been higher, as they occasionally showed signs of running down; all others remained in fair condition.

It was frequently noticed that Class E (adult dependants capable of light task), who were not liable to fine, and did very little work, had saved money. Copper returned freely to the Banias; in proof of this, they would only sell grain for copper at a discount, as their surplus stock of copper was excessive.

35. A rest day wage was given on Test Works in Ajmer from September to November 1899, and later from April 1900, when the District was declared a Famine District.

From March 1899 to September 1899, on Scarcity Works in Merwara, the workers could earn a maximum wage allowance of 25 per cent. in excess, for proportionate increase of task; and no rest day wage was given during that period.

I would prefer allowing the workers to earn a maximum wage allowance in order to support themselves on the rest day.

We could not do that, as our work programme was limited, so eventually gave a rest day allowance.

36. The minimum wage was not excessive for "workers," but too high for class E, "adult dependants capable of light task."

We had no penal wage, and there was no minimum for short work, as above explained.

The limit of the fine for short work to the minimum wage is not recommended, as it only induces idleness, and makes the works attractive.

37. Yes, in Ajmer on Test Works from September to November 1899. We had no penal wage. If gangs could not do half the task it was due to idleness.

38. In Ajmer we had daily payments on Test Works from September to November 1900; then bi-weekly payments until May 1900; and after that date daily payments were introduced.

In Merwara bi-weekly payments were in force until May 1900, when daily payments were introduced in the Beawar Tahsil; and in July 1900 in the Todgarh Tahsil.

Daily payments are preferable on "Scarcity" and "Famine" Works, but on "Test" Works bi-weekly payments are considered sufficient.

39. Before the introduction of daily payments the Famine Naib-Tahsildars were directed to give a minimum wage in cash to all fresh arrivals each day till pay day; this order had, however, to be cancelled, as it was found that labourers frequently left the work after receiving their wage and reappeared again as fresh arrivals a few days after with the same object. Instead, any fresh comers who were *absolutely destitute* were fed in the Work Kitchens

till pay day, when they received the wage they had earned. It was noticed that the Banias had occasionally a collection of brass pots, etc., which had been pawned to them by the workers, but the accounts were settled on pay day; and nothing further than this was noticed.

40. To the individual; and this method is recommended.

Date.	Total number of gangs.	NUMBER OF GANGS GETTING			
		Full wage.	½ wage.	¼ wage.	Less than ¼ wage.
(a) <i>Brighiawas new Tank.</i>					
1st May 1900 . . .	41	29	7	4	1
2nd „ . . .	49	30	10	1	8
3rd „ . . .	39	28	10	1	...
4th „ . . .	39	31	6	2	...
5th „ . . .	39	27	10	1	1
7th „ . . .	41	35	6	...	...
8th „ . . .	49	30	10	3	...

(b) *Bandanwara-Masuda Road.*

3rd May 1900 . . .	50	47	3	...	...
4th „ . . .	51	43	5	...	...
5th „ . . .	50	45	5	...	...
6th „ . . .	50	50	...	...	...
7th „ . . .	59	54	5	...	...
8th „ . . .	59	57	2	...	...
9th „ . . .	59	57	2	...	...

(c) *Kankar Metal Collection, Ghugra Camp, Kishangarh Road.*

1st May 1900 . . .	19	18	1	...	...
2nd „ . . .	19	17	2	...	...
3rd „ . . .	20	14	3	3	...
4th „ . . .	20	19	1	...	...
5th „ . . .	20	19	1	...	...
7th „ . . .	20	20	...	...	...
8th „ . . .	20	20	...	...	...

42. Our system more nearly coincided with the North-Western Provinces modified intermediate system, than any of the others referred to.

The differences were:—

- We had no maximum wage, except from March to November 1899 in the Merwara Scarcity Works.
- We gave a minimum rest day wage from April 1900.
- We paid or fed dependants in the Work Kitchens.
- We did not pay daily till May 1900.

43. Twenty-five per cent. in excess of the ordinary wage. Children from 10-14 years were employed on works, and children in arms remained on the works with their mothers, who received 1 pice per diem for each child. The remaining children were fed in the Work Kitchens.

For weakly persons capable of light task a nominal task was given, with a minimum wage; and in Ajmer they were formed into separate gangs and employed mostly in breaking ballast and stone metal. As they could not receive less than the minimum wage, and were not liable to fines for short work, we got very little out of them. This class are on gratuitous relief, and I would not pay them in coin at all, but feed them in kitchens, making them work as usual, formed into separate gangs away from the workers. If they must be paid in cash, piece-work at favourable rates is considered preferable to task work with minimum wages.

44. Contractors were only employed in supplying hutting materials, and in the erection of huts for the establishment, kitchens and hospitals.

The frames for huts for workers were also supplied by contract.

45. Musters were kept up; and the system was but a modification of the Code Task System, under which the minimum wage limit disappeared, and no rest day allowance was given till April 1900.

46. Up to February 1900, the system was to fix the rate of wage on each Saturday for the next week on the current price list received from the Assistant Commissioner, who fixed the rates at which grain was to be sold on the works at $\frac{1}{2}$ seer less than those in force in the market towns, to allow for carriage, etc.

The price fixed for the cheapest staple grain on works being taken as the basis, the wages were calculated on the grain equivalent in force for each class and paid accordingly, the rates varying often from week to week. The wages were calculated to the nearest pice, sums including a fraction less than $1\frac{1}{2}$ pices being calculated at the next lower multiple, and those of $1\frac{1}{2}$ pices or above at the next higher multiple.

In February 1900 the Commissioner divided the works into groups, the wages for each group being fixed by him from the price of the cheapest sound grain in the weekly statement of current rates, and payments were made on the scale fixed in accordance with the wage table on page 136, North-Western Provinces Famine Code, September 1899.

47. (1) The site for the camp is first selected and marked out; wells are taken up, disinfected with lime and alum if necessary, and chowkidars placed in charge of same. Conservancy flags are posted, the space within which must be kept clean of all nuisances.

(2) Huts are erected, including those for the establishment, kitchen, hospital and store enclosure; and a flag erected at the place fixed for admission of new comers to the work.

- (3) The work is marked out, with work areas for each gang.
- (4) The Famine Naib-Tahsildar, Public Works Subordinate, and Establishment and tools being on the spot, the labour is admitted, and gangs are formed.

All new comers are assembled at the recruiting ground, where the Famine Naib-Tahsildar, assisted by the Public Works Subordinates and their clerks, sort and classify the gangs, making them up by villages and families, 50 to each gang.

When each gang is formed, a mate is selected and appointed, who receives a badge with the distinguishing number of his gang on it; the gangs sit down by classes; a mustering clerk is appointed to every two gangs, and a Moharrir to supervise 10 gangs. The Muster Rolls of the gangs are taken and handed over to the mates, who also receive orders from the Public Works Subordinate or the Store-keeper for the tools of their gangs.

- (5) The gangs are marched off to the store godown, and on receipt of their tools proceed to the work, where each is given its own work area, and instructed what work and tasks are required.
- (6) Hutting materials are given, and the gangs erect their huts under the instruction of "grammies," the position of each hut having been marked out beforehand.
- (7) The gangs are now ready to work, and the following is the daily routine:—

Each gang assembles on its own working area in the morning at the appointed time; *viz.*, 7 A.M. in hot weather, and 8 A. M. in winter.

After muster has been taken, the Public Works subordinate visits each gang in turn and fixes and sets out the task for each, recording the same in his note-book reserved for this purpose, and informing the mates what is required of their respective gangs, each member of a gang being paid by the result of the work done by the entire gang.

In calculating tasks one Class "B" (digger) was considered equal to two Class "C" (carriers) or four Class "D" (working children 10-14). "D" Class was accepted as the "task unit;" the number of a gang was reduced to this unit, and the task fixed accordingly. An example is subjoined.

Earthwork.—Hard soil: task for Class "B" (digger 90 c. ft., and for carriage with 300 feet lead), $4\frac{1}{2}$ Class "C" carry 90 c. ft.

(1½ "C" for each 100 feet lead) = 13
Class "D" units dig and carry 90 c. ft.

	B.	C.	D.
Suppose the gang	11	27	10
consists of	×	×	
	4	2	0

$$44 + 54 + 10 = 108 \text{ Class "D" units.}$$

The task for the gang is therefore $\frac{108}{15} \times 90 \text{ c. ft.} = 748 \text{ cubic feet.}$

At 12 o'clock there is an interval of rest till 2 o'clock; at 5 o'clock the Public Works Subordinate visits each gang again, measures the work, and records the same in his measurement book, and informs each mate of the wage earned. An evening muster is taken, the gangs are paid the wage earned for the previous day, and the work is closed between 6 and 7 P.M. In the evening the Sub-overseer calls the Moharrirs (1 to 10 gangs) and Muster Clerks (1 to 2 gangs) and has the wage earned by each gang, as per result of work measured, entered in the Muster Rolls, the Moharrirs filling in the abstract and preparing Form D VI, showing the amount to be paid next day to each of the gangs in their charge. After check with the Muster Roll, the Sub-overseer countersigns these, and forwards the counterfoil to the cashier.

On the following morning the cashier places the amount earned by each gang in separate money bags, each bag being marked with the distinguishing number of the gang to which it refers.

At 5 P.M. the cashier proceeds with his money bags to some convenient spot on the work area, where the Moharrirs are assembled. To each of them he gives his 10 corresponding bags of money, taking a receipt for the same in Form D VI. The Moharrirs, with the aid of the muster clerks, then proceed to pay their gangs, the cashier visiting each in turn, and checking the disbursement that has just been made. On the work on which the Famine Naib-Tahsildar was present he also inspects payments and satisfies himself by personal observation and enquiry that payments are regularly made, and on the other works in the "charge" the Famine Naib-Tahsildar's Clerk inspects the payments.

- (8) With regard to dependants, on arrival all adults and children above 10 years, unfit for work, are given tickets of admission to the kitchen, as well as all the children

below 10 years of age, except children in arms, who remained with their mothers.

- (9) Any labourers who in the opinion of the Hospital Assistant—who acted as medical adviser to the Famine Naib-Tahsildar—required special diet or treatment, were admitted to the Hospital.

As stated elsewhere, the “charges” generally consisted of three works, separated from each other, and at each camp there was a Hospital, the Hospital Assistant inspecting the labourers on each work on alternate days. A clerk, who carried out the Hospital Assistant’s instructions in his absence, with the necessary establishment of water carriers and sweepers, was appointed for each Hospital.

48. The tasks were stiffened by the Executive Engineer, and a report sent to the Commissioner when important alterations were made. For wages see answer to Question 46.

49. Civil Agency Works were opened in May 1900 in Merwara to provide employment for the villagers near their own homes just before the monsoon set in, so that they might return to their homes, and be ready to resume their agricultural operations with the first fall of rain.

In Beawar these works were appreciated, and about 3,000 left the ordinary Departmental Works; in Todgarh they only attracted about 900 labourers.

GRATUITOUS RELIEF.

66. On Departmental Works adult dependants, capable of light work, were relieved in cash, the mothers of children in arms received 1 pice per day and the other dependants were relieved in the kitchens with rations of cooked food.

72. In Ajmer the maximum number of work kitchens maintained at one time was 20.

In Merwara there were never more than six work kitchens.

These kitchens were opened in January 1900, and maintained till the close of the famine.

The work kitchens served the dependants of the workers of the charge only.

73. The following was the classification of inmates and ration given in work kitchens:—

	<i>Ration.</i>	
Class E, Adult dependants unfit for work.	9	chhittāks.
Class F, Children 10-14 years unfit for work.	6	”
Class G, Children 7-10 years . . .	4½	”
” H, Children under 7, but not in arms.	3	”
later on raised to . . .	4½	”

There were two meals a day; in the cold weather one was at 10 A.M., and the other at 4 P.M.; in the

hot weather, at 9 A.M. and 5 P.M. Half the ration for the day was distributed at each meal, and the inmates were compelled to feed on the premises.

75. On arrival at works all who were entitled to relief at the kitchens were given a ticket of admission by the Famine Naib-Tahsildar.

The Famine Naib-Tahsildar settled which of classes 'E' and 'F' were unfit for work and entitled to relief at the kitchen.

80. Malis and Brahmins were employed as cooks. There was no objection to the cooked food itself, but the Rajputs objected on principle to receiving gratuitous relief, without the form of work in payment, and at first many kept their children away from the kitchens; as distress increased this objection was forgotten.

81. For each work kitchen there was a Superintendent on Rs 10 to Rs 12 per mensem, under the orders of the Famine Naib-Tahsildars.

The Famine Naib-Tahsildar submitted the accounts, with the daily indents for grain and the Muster Rolls as vouchers, each week to the Executive Engineer for payment. The kitchens were inspected constantly by the Executive Engineer, Inspecting Officers, and Sub-Divisional Officers, and the accounts and musters were checked on the spot.

GENERAL.

89. In Merwara it was at one time as high as 73 per cent. of the general population. Merwara suffered from a period of drought and famine for two consecutive years. The whole population, with the exception of a part of the population of Beawar city, depends on agriculture, and with the failure of rains for two successive years, the people were helpless.

The surrounding country was in an equally bad condition, and no attempt was made at emigration. The Government works and relief were all that the people had left them. With the neighbouring Native States the case was different, as their arrangements for relief works were backward, and Merwara was flooded with immigrants who were later drafted back to their own States when those States were ready for them, but there is no doubt many stayed on in Merwara and added to the high percentage of those shown as relieved.

In Ajmer the figures never reached 15 per cent. if we exclude those relieved independently by Istimrardars and Jagirdars.

90. Relief was excessive on Test Works in Ajmer from September to November 1899. The test scale was too liberal, and more lenient and attractive than that for Scarcity Works.

Labourers were paid daily as opposed to bi-weekly; they could not receive less than a minimum wage, and they received a rest day minimum wage, neither of which were granted on "Scarcity" Works. At the commencement of Test Works in September 1899 there were about 2,400 on the works; at the close of October 1899 there were nearly

27,000; the "test" system was then closed, and works carried out as "Scarcity" Works, and in two weeks the numbers fell to 17,000, after which time the rise was gradual, and not spasmodic.

Relief was found defective in February 1900 on the Kekri-Sawar Road, when the 25 per cent. reduction of wage scale was applied.

The labourers were nearly all from the Istimrari Estates or neighbouring States, and came on the work in a pitiable condition, and special measures of relief had to be made in March for a short time to allow them to recruit, by reducing the task, giving them a minimum wage limit, and a rest day minimum wage.

91. Cultivators. All the classes named are supposed to have come on the work, but we had no separate records.

94. Yes, with the exception of a daily minimum wage limit, or daily payments on Test Works.

95. A method by selection, or the ticket system, was most useful in Merwara, as long as it was continued, as a check on foreign immigration. This system is quite practicable in a little strip of territory surrounded by Native States like Merwara.

98. The water-supply, although at one time it caused anxiety in Merwara, never entirely failed, and wells were deepened if required and found necessary.

In Merwara permanganate of potash was used to disinfect wells, and in Ajmer we used lime and alum, and orders were given to disinfect wells once a week.

99. On Works flags were fixed not less than 150 yards from the work or camp, within which no nuisances were allowed, and chowkidars were posted to see this order carried out.

The Famine Naib-Tahsildar engaged the number of sweepers required to keep the Camp, Kitchen, Hospital, and their surroundings clean, and they were under the orders of a conservancy mate.

For water, when the wells had been taken up and disinfected, chowkidars were placed in charge of each, and to each well special men to draw water were appointed, who were given iron buckets for the purpose. A special gang of women (carriers class) were told off to carry the water to pias fixed at suitable intervals on the work, kerosine tins being used for carrying the water. Pias were also established at the kitchens and hospitals.

These pias were supplied with large earthen gharrahs, which were filled by the water carrier, and Brahmin distributors were appointed to each piao to supply the water to the workers, through a tin trough with pipe attached. Four men with a charpoy were always maintained at each camp under the Famine Naib-Tahsildar, whose duty it was to patrol and carry any one found sick and unable to walk to the hospital, and also to carry dead bodies to the burial ground, where a certain number of graves were always ready dug. These were dug by one of the gangs by task when required. Very few bodies were

burnt, as fuel was difficult to get, and very expensive.

During the cholera epidemic in the Kekri Circle in May 1900 special gangs of men were formed to patrol the works, and to search and take the sick to hospital at once, special cholera camps being formed. The large camps were broken up into several smaller ones, special cholera medicines were distributed, all the wells thoroughly disinfected, and special precautions taken about water-supply.

When the epidemic commenced it was very difficult to get the sanitary arrangements into proper order, as many of the establishment, including the Hospital Assistant, were attacked, and the remainder with the labourers were panic-stricken.

The Special Famine Medical Officer, with the Executive Engineer and Inspecting Officer, proceeded at once to the spot, and in a week the worst of the outbreak was over.

The Special Famine Medical Officer supervised all the sanitary arrangements in the camps.

100. The grain shops were regularly inspected, and inferior and unwholesome grain was often discovered, some being old and weevil-eaten, and some containing "Kes-ri." Banias offering unwholesome grain for sale were brought before the District Magistrate for punishment.

101. The bark of certain trees was very commonly chopped and ground, and mixed with "atta," and made into chappatties to increase the quantity. Many suffered from swelling of the feet, but this was considered by the Special Famine Medical Officer as due rather to general debility than to the effects of mixing wild products with their food.

102. *Merwara*.—In July and August 1899 the Marwaris began to emigrate at once, and the roads through Merwara were one continuous stream of Marwaris emigrating with their families and flocks on their way to Central India, from which they returned later on disappointed, and began to enrol themselves on our works.

From the neighbouring State of Mewar thousands came on to our works, in November 1899, in a most deplorable condition, the total eventually reaching 20,000. As our works programme was limited, and to prevent disorganisation on the works, special camps were formed where they were fed till their own State made arrangements to take them back and relieve them. But a number of them no doubt remained on our works throughout the famine, and quite 15 per cent. of those relieved in Merwara may be accepted as immigrants from Native States.

Ajmer.—During the Test Works, from September to November 1899, we were crowded with immigrants from Marwar and Kishangarh, the former being employed on the Budha-Pushkar Road, and the latter on metal collection on the Kishangarh Road, until arrangements were made by their own State for their relief.

We have, however, throughout the famine given employment to a number of Kishangarh labourers, both on doubling the Rajputana-Malwa Railway, and on the Nasirabad-Kekri Railway, portions of our work on these being in the Kishangarh territory. On the Kekri-Sawar Road we have, in addition to labourers from our own Istimrari Estates, always had a number from Mewar employed, and at one time some Jaipuris were working on metal collection on the Deoli Road.

I consider that at the ast 9 per cent. of the number relieved by us on works in Ajmer were foreigners, but no reliable record was kept either in Ajmer or Merwara.

106. No.

108. No.

110. No, wages were paid in cash.

111. From January 1900 we carried out the works under the rules laid down in the North-Western Provinces Famine Code, with the following alterations: -

- (1) In classification and wages we had no women "diggers," and our wage for "carriers" was irrespective of sex, and the *minimum* wage for the special class was the same as for "diggers."
- (2) We had no maximum wage, but dependants were paid a minimum wage or fed in kitchens.
- (3) We had no minimum wage limit for workers even when the district was declared "Famine."
- (4) With regard to payments, in the North-Western Provinces Code, the Famine Naib-Tahsildar is cashier, as well as general supervisor of work, and all accounts and office work are in his hands on the work. Under the system followed here the cashiers were in charge of the cash, and were responsible for it, and rendered their accounts weekly to the Divisional and Sub-Divisional Officers, where they were promptly audited, and where any mistake discovered was brought to notice at once. The office work in fact was centralised in the Divisional and Sub-Divisional Offices under the Sub-Divisional Officers, and the Famine Naib-Tahsildars were free to supervise the many details of work for which they were responsible. The North-Western Provinces system could not have been exactly followed in any case with charges consisting of scattered works. The modifications of that system which were adopted had the advantages noted above.

112. Two staff corps officers were deputed to the Ajmer District as Special Famine officers, and three at different times in Merwara.

The duties of these officers were not solely departmental, as they were largely employed in connection with Civil gratuitous relief, Taccavi advances, etc., and were under the orders of the Assistant Commissioner.

We had one pensioned Native Officer as a Famine Naib-Tahsildar, but no non-commissioned officers of the British Army, unless we count two of the Public Works Department subordinates. For the Relief Works at Deoli, carried out by the Officer Commanding, under the instructions of the Executive Engineer, the staff was taken entirely from native officers, non-commissioned officers and sepoy of the Deoli Irregular Force, who were seconded for the work. From what I saw of the work I would strongly recommend the employment of native officers and non-commissioned officers for supervision, and it would be, I think, an excellent arrangement if sepoy from companies of sappers and miners could be employed on Famine Works, as they have experience and technical knowledge of work.

114. *In Ajmer.*—When “*Test*” Works were started in September 1899 the numbers employed were 2,377, and by the third week in October they reached 26,836. “*Scarcity*” Works were then started, and by the end of the first week in November the numbers fell to 17,000, after which time they continued to rise gradually till the middle of January 1900, when the number on the works was 29,397.

A reduction of wage of approximately 25 per cent. was applied in February 1900, and the number fell to 19,701 at the end of the month, remaining fairly stationary during March.

In April the rest day minimum wage was given, and there was a great rise to 43,877 at the end of the month, but owing to the cholera in May the figures fell to an average of 34,000, as many left the work and went off to their homes. In June the cholera was practically over, and figures rose again to 45,256 at the end of the month, after which, as the rains appeared, they gradually fell till works were closed on 1st September 1900.

In Merwara *Test* Works were in force from November 1898 to March 1899; the ticket system was in force also, and the rise was gradual, numbering 4,278 at end of March.

Scarcity Works, with a maximum wage but no minimum, were then introduced, and continued till November 1900, with the ticket system in addition, and the rise was gradual till the end of July, when a second year of famine was certain, and labourers rushed to the works, the tests having no effect; the figures at the end of each month being:—

July	1899	.	.	.	8,545
August	„	.	.	.	26,525
September	„	.	.	.	45,000
October	„	.	.	.	51,611

In November the maximum wage was done away with, the age of working children was raised, and labour reclassified, but this had no effect in reducing the numbers, which were—

End of November 1899	.	.	61 107
" December "	.	.	58,461

In January 1900 the North-Western Provinces system was adopted and labour reclassified, but there was no minimum limit wage, and until April 1900 no rest day minimum wage; and in February 1900 the 25 per cent. reduction of wage was enforced, but these had no effect, and the figures were:—

End of January 1900	.	.	60,214
" February "	.	.	60,280
" March "	.	.	65,351
" April "	.	.	63,911
" May "	.	.	67,575
" June "	.	.	68,094

the maximum being 68,442 in the first week of July, after which they gradually fell to 12,000, when works were closed on 29th September 1900.

The tasks were stiffened towards the end of the famine, but made no effect on the numbers, and the mode of calculating the fines remained the same throughout. In April, drafts from Merwara were sent to Ajmer to relieve the former works, but the result was not a success, as the labourers left the Ajmer works in batches, and began to wander back to Merwara, as they disliked being far from their homes, and it is probable that the measurement of work done and payment by results were more strictly carried out in Ajmer, and they left in consequence.

115. I think on large works the cultivating classes retained their family ties and organisation; but the lower classes, *viz.*, Raigers, Balais, and also the Mers, have looser caste rules, and therefore camp life would make little difference to their mode of life.

F. ST. G. MANNERS-SMITH,

Executive Engineer, Ajmer Provincial Division.

23rd January 1901.

Mr. Bourdillon.—The figures we have for the mortality of Ajmer are from September 1899 to September 1900; they do not show any very great rise in the death-rate till January. In February, March and April it rose steadily.

A.—Famine was growing more acute. In May there was cholera. It started on works and spread over the district tremendously, but only lasted a short time. I think it was first brought to the works from the villages, because our water-supply on the works was very carefully looked after.

Q.—Was there much gratuitous relief being given in the villages?

A.—No; but in towns there was a lot. I do not think the small amount given in the villages was a cause of the mortality. Mortality was general all over the district. Mortality was also due to a large number of wanderers from Native States, who crowded into the towns in bad condition.

Q.—But the highest amount of relief was 600; that is about one per village?

A.—There was only 20 per cent. of the population on relief works in Ajmer.

Q.—So you think a great number of villages were not needing relief?

A.—They were able to get it at the works.

Q.—Your mortality was due to cholera and immigrants?

A.—Yes; the mortality among the immigrants was twice what it was among our own people. Looking up the statistics of Jodhpur, I find on their civil works their mortality averaged for 6 months, 316 per thousand. The highest mortality in Merwara was 149 per thousand and in Ajmer 111·88; it was the second year of distress in Merwara.

Q.—The numbers there rose in December to 8·93 and in May to 19·51. That was cholera, I suppose?

A.—Yes; and we had even more trouble with immigrants in Merwara than in Ajmer; 25,000 came from Merwara, and besides these who came to stay, large numbers passed through. They registered 32,000, but many more went through. I saw the men on works; they were looking better than in an ordinary year of scarcity; it was the first time they had got any pay. The arrangements on the works were excellent and the hospitals were very well looked after. In Ajmer there was a large number of immigrants at Kekri.

Q.—What class of subordinate medical officers had you got for this work?

A.—We were very hard up for these. We had a reserve for Rājputāna of 15 Assistants. I utilized these until I could get some extra men. We got some fairly good men by advertising.

Q.—Where were they got from?

A.—From Bombay.

Q.—Did you pay them well?

A.—Rs. 40 a month.

Q.—That is rather curious, that you got men from Bombay, because the difficulty in Bombay was that men could not be got; they did fairly good work?

A.—Yes; on the whole. They behaved well; some of their relations died on the works of cholera.

Q.—Your scheme was to have very large poorhouses?

A.—We had over 3,000 people here in Ajmer at one time; 25 per cent. were foreigners. They got into the city and I was afraid of an epidemic. They refused to work. We put them into poorhouses, but they preferred to beg in the streets. We got a very few on to works, but next day they were in the streets.

Q.—How many poorhouses were there altogether?

A.—Four in Ajmer and one in Merwara. In Kekri 50 per cent. were foreigners; in Deoli 80 per cent.; and they were all mostly in very bad condition.

The President.—The time when your gratuitous relief was most freely distributed was in April 1900, when you had something under 600 in all the villages in your district, out of a population of 322,000. The number diminished so that in May you had only 400 on gratuitous relief: 400 out of three lakhs or only ·075 per cent. How many villages have you in Ajmer?

A.—About 600. The population is 200 per square mile.

Q.—You practically gave no village gratuitous relief at all.

A.—Not in Ajmer.

Q.—We found in other places that mortality was attributed very largely to the failure to give village gratuitous relief. I suppose there are some respectable people in villages who do not like to work and some decrepit who cannot, and if they do not get some relief will starve?

A.—Just so.

Q.—You have stated that you did not think mortality was in any way increased by the failure to increase village relief. Are you disposed to adhere to that statement when I put the matter to you in this way?

A.—The Commissioner was watching that very carefully all the time.

Q.—But less than one person per village was on gratuitous relief at the worst time of the year?

A.—There were kitchens attached to every work in Ajmer.

Q.—Had you kitchens attached to villages?

A.—Only in Merwara, not in Khalsa villages; we have only one-third in Ajmer. There were 46 kitchens altogether. There were seven not attached to works.

Q.—The point I want to bring to your notice is this: so far as I can gather from the figures, village gratuitous relief, by the distribution of doles, practically did not exist, and in civil kitchens the numbers of relieved even at the most would be only 1 per cent.; they were 5,000 in July.

A.—In Ajmer they had some rain in June and July and the grass grew, and they sold it very extensively. I myself bought Rs. 600 worth of grass.

Q.—Then in Merwara we find that gratuitous relief was distributed at the time of greatest pressure to 7,250 people. I suppose that includes relieved on works, in kitchens and in poorhouses as well as villages.

A.—73 per cent. of the population were on works and the villages were practically deserted.

Q.—The total gratuitous relief in Merwara reached 27,000 in June, 32 per cent. of the population. But you cannot tell me what proportion were relieved on the works or in poorhouses or in the villages?

A.—No.

Rao Bahadur Syam Sunder Lal.—Was the mortality in the villages affected by immigrants to any extent?

A.—I am sure it must have been.

Q.—In the district as apart from the works, I refer to the villages in the district. Do you include Kekri?

A.—Our mortality at Kekri went up enormously, but the mortality in ordinary villages would not be much affected.

Q.—If there was no high mortality in such villages, how is this accounted for?

A.—There was unusual unhealthiness on account of the famine.

Q.—Do you think there is much difference between these villages and the cities?

A.—Our mortality in Ajmer was immensely high too.

Q.—And in the villages?

A.—We show it only by circles, I have not got the figures for each circle.

Q.—What is the general impression. Do you think the mortality in these villages was much affected by immigrants?

A.—I have not got the figures for each village; they go to the police.

Q.—Do you think that the scale of wages was sufficient?

A.—I think it was quite sufficient.

Mr. Nicholson.—There was a great invasion from Merwara about the end of 1899?

A.—Yes.

Q.—An estimate has been framed stating that 40 per cent. were suffering from diarrhoea and dysentery?

A.—Yes; that is the case. I questioned the Assistant Surgeon particularly on the point.

Q.—And further, that many were in such a state of starvation that in the act of receiving food they died?

A.—Yes; it was a piteous sight.

Q.—Besides that, in the poorhouses, I believe nearly half the inmates were vagrants?

A.—Yes, about 43 per cent.

Q.—Were not a number of deserted children and orphans picked up throughout the district by missionary institutions and others?

A.—Yes.

Q.—Were they not in such a state that many of them died?

A.—Yes; nearly 50 per cent.

Q.—Although they got all possible care they died?

A.—Yes.

Q.—And that added to the mortality of the district?

A.—Yes.

Q.—Generally, have you formed any estimate as to the increase of mortality in the districts by reason of the mortality amongst immigrants?

A.—I think that at least 30 per cent. was due to immigrants, that would be a low estimate.

Q.—Am I right in inferring that the introduction of such an enormous body of diseased persons would tend to spread disease among the general population?

A.—Certainly.

Q.—You think it would have an effect on a population already enfeebled?

A.—Yes; the small-pox was the most virulent I have seen for years, the cases of small-pox were nearly all confluent.

Q.—You had diarrhoea, dysentery, small-pox, cholera and subsequently fever?

A.—Yes; the fever was terrible.

Q.—Was it famine fever?

A.—No; a virulent form of remittent fever.

Q.—It attacked all alike ?

A.—Yes, it attacked rich and poor ; that was in the last three months.

The President.—As regards the question of wages, the wages given were 19 *chhataks* for a digger, 14 for a carrier, eight for a working child, and four and-a-half for a non-working child. Do you think that was an adequate scale ?

A.—I think it was ample.

Q.—Do you think eight *chhataks* is sufficient for a child of 14 ?

A.—I think he wants more ; if he is a big child he wants as much as a woman. I understand he got 9.

Q.—Do you think 14 is sufficient for an adult carrier ?

A.—Yes.

Q.—What was your scale ?

A.—From January it was 19 for a digger, 14 for a carrier, ten for a working child, eight was the minimum.

Q.—Do you approve of that scale ?

A.—I think that scale was ample.

Q.—Have you got any statistics as to the average weight of people ; are they kept in your jail ?

A.—Yes.

Q.—Have you considered these rations with reference to the average weight of a man, woman or child ?

A.—I have not worked that out ; we give only 14 *chhataks* in the jail.

Q.—And you exact labour for that ?

A.—Yes, that is the labour scale ; every second day they get vegetables in addition.

Mr. Bourdillon.—You said the Commissioner watched the death-rate very carefully. What arrangements are there in Ajmer-Merwara for keeping District Officers informed of the progress of the death-rate ?

A.—The headman of the village supplied reports to the police, to the *thana* and so they came to the Commissioner. In ordinary years, returns come to me monthly ; this year these figures were specially asked for.

Answers by Lieutenant-Colonel D. ff. Mullen, I.M.S., Administrative Medical Officer in Rajputana, to the questions framed by the Famine Commission.

Questions.

3. (a) What is the average rainfall of your district during the rainy season?

(b) What was the actual rainfall in the rainy season of 1899, and what percentage of the average did it represent?

(c) When did the rains cease?

(d) What was the distribution of the rainfall from June to September, both inclusive, compared with the average?

The average rainfall of Ajmer District during the rainy season from June to September, both inclusive, is 18·47, whereas of Merwara District is 18·49.

The actual rainfall in the rainy season of 1899 for Ajmer District was 7·97 or 36 per cent. of average, and for Merwara District 4·27 or 20 per cent. of average.

The rains ceased in September.

The subjoined table shows the distribution of rainfall month by month from June to September, both inclusive for 1899, compared with the average:—

AJMER DISTRICT				MERWARA DISTRICT.		
Month.	Actual rainfall.	Average from 1894-98.	Variation.	Actual rainfall.	Average from 1891-98.	Variation.
June . . .	3·76	3·18	+0·60	2 00	3 44	—1·44
July . . .	3 58	7·82	—4·24	1·20	7·47	—6·27
August . . .	0·04	5 24	—5·20	0 06	4 85	—4·79
September . . .	0 59	2 25	—1·66	1 01	2 73	—1·72
TOTAL . . .	7·97	18·47	—10 50	4·27	18 49	—14 22

Poor-houses, Ajmer District.

71. How many poor-houses were open in your district, and when were they opened?

Four poor-houses were open in the Ajmer District.

The dates on which they were established are as follows:—

Ajmer . . . 4th October 1899.
Kekri . . . 4th November 1899.
Deoli . . . 5th May 1900.
Daranthu . . . 1st June 1900.

Total No. of admissions . . 29,012
" " deaths . . 3,258
" residents of district . . 15,759
" " Native States { 11,966
 =43 per cent.
" units fed . . 514,617

The following table shows the detail against each :—

Name of Poor-house.	Number of admissions.	Total number of deaths.	Percentage of deaths to admissions.	Total number of residents of District.	Total number of residents of Native States.	Total units fed.
Ajmer . .	18,660	*2,178	11·67	10,828	6,545	†249,093
Kekri . .	7,489	932	12·44	3,997	3,492	101,737
Deoli . .	2,355	132	5·61	518	1,807	66,304
Daranthu . .	508	16	3·11	386	122	7,433
TOTAL .	29,012	3,258	8·73	15,759	11,966	514,617

* Seventy-one of which were caused by an epidemic of cholera from April to August.

† The highest number of inmates at one time in the Ajmer poor-house was 3,397, viz., on the 2nd August 1900.

Poor-house, Merwara District.

One poor-house was open in the Merwara District at Beawar on the 1st February 1900.

† The Assistant Surgeon, Beawar's telegram since received shows as follows :—

Admissions, 10,617; deaths, 942; percentage, about 6 per cent.

‡ Admissions, 4,251; deaths, 686; percentage, 16. The poor-houses were practically hospitals, and many of them received special diet as well as blankets, clothes, Mellins' food, etc., from charitable funds.

Grinding corn, carrying water and fuel for the inmates, was the only work exacted.

Yes.

Yes.

72. Were poor-houses used as depôts for vagrants and immigrants, and were persons who refused to work on relief works sent to poor-houses as punishment?

73. Were measures taken periodically to weed out the poor-houses and send people to their homes or to relief works?

Those fit for works were drafted to works, and those who came within the classification of recipients of gratuitous relief were sent from time to time to their villages to be relieved there. The Political Officers of Native States were addressed to move their respective Durbars to send officials to take away their inmates.

A standing camp was established by the Marwar and Bikaner Durbars respectively, to collect Marwari and Bikaner immigrants for despatch back to their homes. The Bikaner camp was kept up till the 4th November and Marwari Camp until the end of famine.

74. Statistics have been called for, but how many kitchens were opened in your district—

(a) before

(b) after the rains broke?

After the rains of 1899 failed 26 kitchens were opened, as per detail below, in Ajmer District. Some of them were placed near the works, while others were kept conveniently for groups of villages, but none of them were established actually on the works.

The first kitchens were opened in October at the following villages :—

(a) Near works—

Budha-Pushkar.
Gagwana.
Rata-Khera.

(b) In Central villages—

Srinagar.
Ramsar.
Bhattiani.
Harmara.
Rajgarh.

In November 1899 more kitchens were added, all in the vicinity of works, *viz.*,—

{ Shokla.
 { Sarana.
 Padampura.
 Madarpura.
 Malera.
 Tilornia.
 Bogla.
 Barla.
 Kishangarh Road, 16th mile.
 Arjanpura.

In December 1899 eight more kitchens were started at—

Dorai.
Bithur.
Kishangarh Road, 24th mile.
Bandanwara.
Kekri-Goella Rd., 20th mile.
Bhimpura.
Loharwara.
Chat.

What radius was a kitchen expected to serve?

The kitchens were within easy reach of villages and works connected, and expected to serve a radius from 4 to 5 miles.

In Merwāra.

Twenty kitchens were opened in Merwara before and after the rains.

The first four kitchens were opened in August at—

Bhim.
Baghana.
Dawair.
Barar.

In September eight more kitchens were started in the Todgarh Tahsil.

In October the first kitchen was opened in the Beawar Tahsil.

In November three more kitchens were added :—

Saroth,
Beawar, } in Beawar Tahsil.
Andideori,

In December four kitchens were started at—

Jawaja,
Bailan, } in Todgarh Tahsil.
Bagri,
Bujarel,

75. What ration was provided, and how often were meals distributed and at fixed and varying times? Were people compelled to feed on the premises or were they allowed to take food away?

Dalia was the principal diet. The grain from which it was made varied from time to time. Wheat was substituted for maize at the beginning of the hot weather, as maize was complained of as too heating at that season. Gram was tried, but it was found to cause intestinal irritation, and moong dal was substituted.

One and a half seers of oil was added to each maund of dalia when mukki was used instead of wheat.

On the recommendation of the medical authorities from May 1900 dal and chappaties were substituted for dalia twice a week. This variety of diet was beneficial to health.

The meals were distributed twice a day. In cold weather one was at 10 A.M., and the other at 4 P.M., and in the hot weather 9 A.M. and 5 P.M. were the hours.

People were compelled to feed on the premises.

All kitchens, with the exception of Srinagar, Ramsar, Nagelao, Ramner-Dhani, Karel, Satana, and Tantuti, were in the immediate vicinity of relief works. These seven kitchens were necessitated, as the villagers of these villages were working in relief works at a distance, and their dependants had to be relieved.

Two classes of persons were admitted to the kitchens :—

- (1) Adult dependants and children belonging to the relief workers, admitted on production of a certificate from the officer in charge of the relief works near the kitchen.
- (2) Adults and children unable to support themselves in their villages and too weak to go on the works, admitted on the production of a certificate from the Patwári of the village to which they belonged.

76. Was any limit of distance from relief works fixed within which Civil Kitchens could not be opened, or were Civil Kitchens opened close to relief works?

77. Was admission to kitchens free or restricted? and if restricted, what was the method of selection for admission?

78. What was the poor-house ration, and of what grain? Was it varied on occasion to meet the case of sickness or weakness?

83. What persons were in charge of kitchens, and what supervision and check was exercised over them?

The ordinary diet was changed from time to time.

It was the same as that given in kitchens, *vide* answers to question about rations in kitchens.

The establishment allowed was:—

- 1 Superintendent.
- 1 Cook.
- 1 Assistant.
- 1 Water-bearer.
- 1 Swceper.

The special Famine Naib-Tahsildars and Medical Officers inspected the kitchens regularly. The schoolmaster of the villages in which the kitchens were situated undertook the task of Superintendent without any remuneration, and in the Khalsa districts was aided in his work by the Patwári. The Revenue Extra Assistant Commissioner, Deputy Magistrate, Kekri, and the Tahsildar supervised the kitchens in their various circles, while the Manager of Bhinai supervised the kitchens situated in that State.

Births and Deaths Registration in Ajmer-Merwara.

98. What system of registration of births and deaths is followed?

In villages every headman reports the occurrence of births and deaths to the Patwáris and Police officials, who enter the report in their Registers.

At the end of each month Patwáris and Kamdars of Istimrari Estates send the returns of births and deaths to the Police Thanadars of each village circle, and the Thanadars send the returns to the District Superintendent of Police, who forwards them to the Civil Surgeon, Ajmer.

In Municipal towns the head of the household, or in his absence any adult male member of family or any servant in the case of a birth, and the Mohalla sweeper in the case of a death, are bound to report to the Municipal Mohurrir, who is especially appointed to do this work. The Assistant Health Officer in Ajmer verifies personally all deaths that occur within Municipal limits in Ajmer.

On Famine Relief Works.

The Famine Naib-Tahsildar was responsible for births and deaths registration.

99. Where statistics show a very high mortality, how far is that attributable to diseases connected with unsuitable and insufficient food?

In Ajmer-Merwara the high mortality was due to the following diseases, viz.:—

Diarrhœa,
Dysentery,
Fevers,
Cholera,
Small-pox,

as shown in the subjoined table of mortality in the Ajmer-Merwara District.

Year.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhœa.	All others.	Total.
1898	1	419	8,689	549	2,857	12,015
1899	2	962	12,705	1,158	3,186	18,013
1900	4,842	2,610	44,236	8,623	4,756	66,067

100. How far was an impure or insufficient water-supply a cause of increased mortality, and what measures were taken to improve or extend the water-supply?

Scanty and muddy water from wells doubtless contributed to the increased mortality, but on famine works the following precautions were taken, for which see water-supply.

Was permanganate of potash used to disinfect wells and other sources of water-supply, and if so, at what intervals?

Yes, twice a week.

Disposal of Excreta.

101. What special sanitary arrangements were made—

- (a) on works;
- (b) at poor-houses;
- (c) at kitchens?

When the Public Works Department arranged for the hutting of the workers, a cordon of flags was set round the camp at a distance of 200 yards from the huts, and enclosing an area roughly circular, but depending on the nature of ground and the direction of prevailing winds. The people were allowed to use the ground outside this area for purposes of nature, and a sufficient number of chowkidars were selected from the workers, who were responsible that there was no pollution on the ground inside this circle. No offensive smell arising from this system was observed, more especially in sandy soils, and this system is believed to be better than any system which tends to collect excreta in any one place. No disinfectants were found necessary.

In hospitals the arrangements for conservancy were different from those of the general camp. For the patients who were too weak to go outside the cordon of flags a small sirki latrine was erected just outside the hospital enclosure in which a small trench was dug, in which a number of gunlahs were kept. The excreta were removed from these by the sweeper and taken to a trench about 200

yards away, and then covered with dirt and earth. For helpless people, and especially those suffering from bowel complaints, between each two huts in the lines of hospital huts gumlachs were set in the sand and then people were allowed to use them freely for purposes of nature. They were removed at once by the sweeper to the general trench already mentioned.

Water-supply on works.

Certain wells were set apart for drinking purposes according to requirements, and two chowkidars fixed for each to guard against contamination, and to supply the people with water drawn in buckets provided by the camp authorities. Besides this a piaos arrangement was made to supply drinking water on the spot and to save the congestion which occurred owing to the crowd of people. This plan worked well, and enabled the staff to deal with any epidemic of water-borne disease. Piaos were also established at kitchens and hospitals.

Disposal of Dead.

One hut was placed apart in each camp and marked by a black flag, in which any dead bodies from the hospital or camp and vicinity were placed for disposal. The dead were carried off to the appointed spot about half-a-mile from camp and buried.

And were they sufficient?
Who supervised them?

They were sufficient.

They were supervised by Famine Medical Officers, Subordinates and Naib-Tahsildars.

102. Was there a regular inspection of the grain shops on the works, and did that inspection disclose the sale of inferior or unwholesome grain?

Yes, there was.

103. How far did the people supplement their food with wild products, and had the consumption of wild products any appreciable effect upon their health?

Yes, it did. The Banias and those who were found in fault were prosecuted and convicted.

This was freely done, especially by those with large families. It had no deleterious effect, except when used in large quantities.

D. FF. MULLEN, M. D., Lt. Col., I.M.S.,
*Administrative Medical Officer in
Rajputana.*

The 27th January 1901.

The President.—When did you become Commissioner?

A.—At the end of August 1899.

Q.—Famine was less in Ajmer than in Merwara?

A.—Quite so. Test-works were started in Ajmer in November 1898 and continued up to the rains of 1899, and they were re-opened in September. There were some half dozen of them. They were works taken from the famine programme, and as test-works continued till the end of October; and in November they were converted. Our figures on the test-works were very high indeed. They ran up to 24,000 at the end of October.

Q.—They went up in December to 35,260 on works, besides gratuitously relieved?

A.—Yes, including the *istimrari* figures.

Q.—What system of payment had you up to the end of December during which time the figures rose?

A.—Payments were made daily according to the amount of work done, with the Ajmer Code minimum of 12 *chhataks* up to the end of October. There was no tendency towards reluctance to work at that time.

Q.—We were told by Major Spilsbury that the minimum wage was so attractive as to draw people from the neighbouring Native States of Kishangarh and Jaipur. Do you subscribe to that?

A.—Yes; I think the Honorable Member (the Diwán) will be able to confirm it. Kishangarh labourers came on to our works in November and December. Our test-works were too liberal, and considerably more liberal than what the Diwán was giving in Kishangarh. Our earliest wages were 19 *chhataks*, 13 and 8. Then we had a subsequent scale of 20 *chhataks*, 16 and 8. The change was made in March 1899 and this scale continued till October 1899.

Q.—That was liberal. It also attracted people in your own villages who were not in need of relief?

A.—Yes.

Q.—That explains why your numbers went up with such a bound—4,000 in September, 24,000 in October, and 35,000 in December?

A.—At first when we changed the works from test-works to scarcity works the number fell from 24,000 to 17,000; but they rose again. The scarcity scale was 20 *chhataks* for diggers; the earrier's was raised from 15 to 16, and working children (of 10 to 12) from 8 to 10 *chhataks*.

Q.—Then I should have expected a rise instead of a fall?

A.—Then we reclassified again in December, when we came on to the classification which we subsequently used throughout the famine. Though we had made our scale more attractive in November, we abolished the Sunday rest-wage and the maximum and minimum.

Q.—When you introduced the North-Western Provinces system there was an immediate drop from 35,000 to 19,000 and on gratuitous relief from 9,000 to 4,000. You got rid of half the people on your works. Had the change any injurious effect upon the people? Did any people go away to their villages who were in need of relief?

A.—No; the wage was just adequate.

Q.—Had you at that time any system of village inspection?

A.—We had that from September.

Q.—But you only had 350 people on village doles in the whole of Ajmer at the end of October, and in November 328, and December 437.

A.—We never had a large number on village doles in Ajmer.

Q.—Was there any other means whereby relief was given in villages? I do not find there was any other system.

A.—We have only 140 *khálsa* villages, and in these we had a close system of inspection.

Q.—But you take responsibility for the *jágirdári* villages as well?

A.—Yes. We had a system of village inspection.

Q.—You had rest-houses, poorhouses and kitchens?

A.—Rest-houses for wanderers from Native States; poorhouses for Native States principally; kitchens for our own people.

Q.—Was there any system by which necessitous people in villages were sent to kitchens?

A.—They were on the village dole list.

Q.—But 437 people cannot exhaust all the necessitous people in villages, *khálsa* and *jágirdári*?

A.—They were subject to continuous close inquiry.

Q.—Do you admit the correctness of these figures?

A.—Yes.

Q.—How many villages have you?

A.—*Khálsa* and *jágirdári*, 165.

Q.—So you had only two or three per village—is that sufficient administration of gratuitous relief?

A.—A great many of these people had gone into residence on works as dependants.

Q.—If you found a starving person in a village you either gave him a dole or sent him to the public works kitchen? If there was no such system, this distribution of gratuitous relief was hardly sufficient?

A.—It was a matter of particularly close observation by myself and the Assistant Commissioner. I occasionally added a few people myself to the list.

Q.—The categories of the Code—blind, cripples, very young children, attendants on the sick, and people not able to earn a living—are elastic. Did you give any instructions that people were not to be put on village doles, but sent to the neighbouring kitchens?

A.—No.

Q.—So that kitchens were restricted to dependants on works?

A.—Yes.

Q.—Did people generally take their dependants on to works?

A.—Yes, in Ajmer.

Q.—That is an explanation.

A.—There was also still some employment in the villages; the famine was not so bad as in Merwara.

Q.—You had 7,851 in poorhouses in December, rest-houses, and kitchens. Of these how many would be foreigners?

A.—The immigrants were divided into two classes: first, the regular stream, and they were all right when they came down: 20,000 were counted in one day on one road. But they came back again when they could not get work in Malwa and the North-Western Provinces.

Q.—No, there they were merged in the ordinary population. There was no distress in the North-Western Provinces to speak of.

A.—Well, a good many came back in a distressed condition, and there was increased pressure on our poorhouses. Immigrants would account for considerably more than half of these 7,800 people.

Q.—In Merwara the position was more complicated by the fact that it was the second year of distress, and you had 71,000 on relief at the end of December. How many of these would be immigrants?

A.—The Mewar immigration was in full swing there, and we had 20,000 Mewari wanderers in Merwara; 10,000 appear in our returns, and there were others in special foreign camps which did not appear in our returns. I put down 11,000 of our returned figures as belonging to Native States, and I believe there was as well a considerable percentage (up to 15) of Mewar (Udaipur) people from the other side of the border: relatives of people on our works. One-third of the whole must have been foreigners, but my estimates are conjectural.

Q.—Was there the same cause of attraction in Merwara as in Ajmer?

A.—The wage scale was the same at that period, but the neighbouring Native State had no relief arrangements whatever—none at all.

Q.—In January in Merwara there was no reduction in your numbers on the introduction of the North-Western Provinces system as there was in Ajmer. There was rather a rise, 72,000 in January, 76,000 in February, 81,000 in March. To what do you attribute that rise?

A.—To the continued pressure of the famine, the exhaustion. Merwara was not a high-way for immigrants as is Ajmer; but so far as works were concerned there were then a larger number of immigrants. There was increasing pressure on both sides of the border.

Q.—At that time in Merwara you had a rise in mortality as you had in Ajmer. It got up to three times the normal in January 1900.

A.—Some 20,000 to 25,000 Mewaris invaded us, and 2,000 deaths must have occurred amongst these unhappy people.

Q.—How many villages are there in Merwara?

A.—320.

Q.—You had considerably more village relief there than in Ajmer. You had an average of four or six, and in November it went up to nine per village. Was there any difference in your organization in Merwara?

A.—No; it was exactly the same. We grouped the villages into circles; about 20 in a circle; and the inspecting officer had to visit them every week. He was the *girdawar* and over him there was the *Naib-Tahsildar* and over him the *Tahsildar*. The *girdawar* was from the revenue staff. The *Naib-Tahsildar* was a special officer. Over the *Tahsildar* was the Assistant Commissioner or Collector or the Revenue Extra Assistant Commissioner. Staff Officers and the Assistant Collectors were the superior inspecting staff. We started by employing Staff officers on village inspection as well as upon public works.

Q.—There was some difficulty, as to their dual employment? Did that come to your notice?

A.—No.

Q.—Was there any general cause of mortality?

A.—There was cholera on the works, small-pox, and the fever epidemic. Cholera began in May 1900, and was both rural and urban.

Q.—I suppose the immigration vitiates the relief figures?

A.—Quite so.

Q.—What proportion of this great number of 72,000 in May is due to immigrants?

A.—I have put it at 15 per cent., and that is low.

Q.—Of course you had two famine years?

A.—And it is a hilly district where the people, the Mers, are a thriftless, ignorant class. There is no saving among them.

Q.—Are you satisfied with the intermediate system as affording adequate relief?

A.—Yes. I prefer it to the Code task system. I am entirely opposed to a minimum wage for workers. I think 15 *chhataks* would be better for a woman carrier than 14. From

my observation I know that the women do a lot of work besides their task in camp, grinding the grain, &c., and the man generally takes more than his fair share of the meal.

Q.—Would you be disposed to draw any difference between the men and women?

A.—I would put men only into the digger's class.

Q.—But if you had so many men that you had to class some as carriers?

A.—If they did carrier's work, I would put them on the 15 *chhatak* wage.

Q.—Your payments were daily?

A.—Under the test-work system daily, thereafter twice a week, but from January onwards we endeavoured as far as possible to make them daily. I am certainly in favour of the latter, except on test-works where bi-weekly payments might be given.

Q.—Was there a system of grain inspection on your works?

A.—Constantly.

Q.—Was bad grain brought out?

A.—Frequently; and we punished for it.

Q.—Do you attribute any sickness to bad grain?

A.—If predisposed to disease, certainly. The grain was principally *makka* and *juar*. We had no Burma rice. The only rice was a consignment of Nepál rice which we distributed.

Q.—Had you any difficulties with railways?

A.—Not serious ones. Some villagers said they had ordered fodder and it was not brought to them.

Q.—Have you detected any feeling of demoralization among the people?

A.—They did not go back to their ordinary avocations so willingly as could be expected in Merwara.

Q.—Was the ordinary area cultivated—the last *kharif*?

A.—Very nearly the ordinary *kharif* area, but not the *rabi*, which is the better and more lucrative crop. The *kharif* may have a larger area, but it is more dry cultivation. The *rabi* is now considerably below the normal, owing to the mortality from fever and the absence of cattle. About nine-tenths of the cattle died in Merwara, and in Ajmer half. We have purchased cattle from the North-Western and Central Provinces. Many of the cattle lost were useless. The mortality was not so much in the milch-cows; their owners could earn a living in the famine. There was a great demand for *ghí*.

Q.—Were any arrangements made during the fever to distribute quinine?

A.—Yes, in both districts. We spent large sums on it.

Q.—Are there any points of the Famine Code which strike you as susceptible of improvement?

A.—We like our own classification: it suits our classes of workers; we have not quite so many classes as you have and fewer sex distinctions. We count children above 10 as working children.

Mr. Nicholson.—I gather from your report that neither in Ajmer nor in Merwara do you consider that as regards cattle the State can usefully intervene?

A.—Out of (240,000) cattle in Merwara, only (27,000) were plough-cattle. Cattle are largely kept for manure. A great many of those lost were useless cattle.

Q.—Is there any chance in future famines for the storage of hay—could that be extended?

A.—I doubt it. In a good year with decent rain we have plenty of grass, and you never know when a bad year is coming.

Q.—Would it not pay, as a matter of insurance, to collect the grass and store it?

A.—We have stored as much as 20,000 maunds, but the experiment was not successful. It kept the cattle here. We did not want to keep them. We want them to be driven away, except those we want to keep.

Q.—But we have had it in evidence that hay can be kept good many years; would it not have served a useful purpose in Ajmer? Would it not as a matter of economy or manure-supply be better?

A.—I do not think so. I do not think we could maintain a really good supply against famine.

Q.—Could not the villagers be induced to co-operate?

A.—We have endeavoured to do that, but they are very jealous of their grazing lands.

Q.—Would not the practice of deliberately growing fodder and storing it be commendable?

A.—Our small forest revenue is largely derived from the sales of grass. I do not think there is much future for grass storage, either by Government or the people themselves.

Q.—And not advantageous to keep the cattle in the country rather than send them away?

A.—I would sooner let them go than keep them here by an artificial store which might give out at any moment; the cattle would then be left to die.

Mr. Bourdillon.—When the rains broke what arrangements were made on relief camps?

A.—The people went back to their villages, and as the numbers got low we closed the works and transferred people to gratuitous relief.

Q.—I notice that when your number began to fall on works and gratuitous relief, the death-rate began to rise?

A.—The immigrants would have left us in July, 1900, when the death-rates began to fall. They rose later on when the frightful famine fever began.

Q.—Is there anything more you would like to say about the mortality ?

A.—The whole country was overrun by immigrants from September to July 1900. Between 9,000 and 10,000 deaths are absolutely due to foreigners, as we know. We know, for instance, that famine orphans were collected by the various missions in Native States and brought in here. They had terrible mortality, particularly in the cholera time. Mr. Brown, one of the mission agents, told me 2,800 had died. Every mission had large numbers, and if I say that 3,000 foreign famine orphans died in Ajmer-Merwara I account for a portion of our mortality. Then there were the foreign deaths in our poorhouses and on rest-camps, and over and above that there was a large number of immigrants believed to be on our works. They would account for still more than these 10,000 deaths from September to July. We have no special figures for these immigrants.

Q.—That is important. In that case your divisor is too small, especially where you only have a population of 120,000 ?

A.—Yes, and the figures are calculated on the last census, and the increase per ten years is 17 per cent. So the death-rate is not so high as it would seem. I put 20 per cent. of the deaths down to immigrants and 15 per cent. of the numbers on relief; but I now think my 20 per cent. is too low; it should be between 30 and 40.

Q.—So the death-rate will be reduced to between 30 and 40 instead of 50 or 60 ?

A.—And the cholera affected not only the workers, but all classes. In Ajmer 20 Europeans died.

The President.—What is your revenue ?

A.—About three lakhs for the two districts.

Q.—In Ajmer you gave suspensions. Did you declare any portion of suspensions when famine declared itself ?

A.—No; we work under very liberal rules by which Government allows us to suspend.

Q.—At the end of September your suspensions were Rs. 2,47,000 in Ajmer alone and in Merwara 1,38,000 ?

A.—In saying three lakhs I was thinking of the *khālsa* villages and omitting the *istam-rari*.

Q.—How many *kists* have you ?

A.—Two, the *khārif* and *rabi*.

Q.—Did you declare suspensions so as to relieve the people's anxiety.

A.—We simply did not collect; we made no definite declaration. Suspensions had been given in the same way in the last famine.

Q.—Are collections made by the *Tahsildār* ?

A.—By the *mālguzār* of the village, with the assistance of the *Tahsildārs*: the former is responsible for paying the money into the Government Treasury.

Q.—But you must have intimated that the revenue was suspended ?

A.—The Chief Commissioner passed his temporary sanction.

Q.—For a tract of country or a particular village ?

A.—Tracts of country. We were using clause I of our rules, "large physical calamities affecting a tract."

Q.—When was your *khārif kist* of 1899 due ?

A.—Fifteenth January 1900.

Q.—And your *rabi* ?

A.—June 1900.

Q.—When the time came for collecting the *kists* did your Assistant Collector notify to the *mālguzārs* that the collection or a percentage of it would not be made ?

A.—I could not say it was notified; but it was known. I do not think there was any need for notification. The *patwāri's* report is examined and checked and the Revenue Assistant Commissioner makes his recommendation and gives temporary suspension.

Q.—What is the pressure of revenue per acre in your division ?

A.—According to Mr. LaTouche's settlement, one-fifth of the gross produce in Ajmer and the better part of Merwara and one-sixth in the hilly tract of Merwara. Cultivation has undoubtedly increased since Mr. LaTouche's time. The settlement was revised in 1885 by Mr. Whiteway, and one-fifth and one-sixth is true still, I think. There is no difficulty whatever ordinarily in paying the Government revenue. It has not weakened the power of the people to resist famine. It is very light.

Q.—A revenue of one-fifth cannot be said to be light. What are your chief crops ?

A.—Maize, *jawari*, cotton, wheat, and barley—a good deal of wheat.

Q.—Is your suspension in accordance with the crop failure ?

A.—Yes.

Q.—The *patwāri* inspects and reports ?

A.—The *girdawar* makes his report, and the Revenue Assistant Commissioner comes on the scene, inspects, and the suspension is made.

Q.—Is a remission ever given afterwards ?

A.—Very seldom indeed in the matter of land revenue. Irrigation revenue is remitted. When we suspend and afterwards recover, we have authority to spread it over three years.

Q.—As to bunding rivers, a river sometimes runs through to the British and Native territory, and if you bund it higher up it intercepts the water lower down. Is that ever a case for dispute ?

A.—Frequently. Every owner is most tenacious.

Q.—Has there been a general policy of so arranging the construction of bunds that when you have impounded as much water as you want, you let the balance go? The problem is so to arrange matters, that each party shall get water proportionate to their needs. Has there been a system of embankments and tanks and reservoirs and weirs, so that when the person up the river had a certain quantity of water the remainder could be allowed to go down?

A.—The principle has always been admitted, and the country has been extensively surveyed for tanks, but not especially for the scheme you mention. I have recommended a joint arrangement with the Native States.

Mr. Nicholson.—Is the one-sixth calculated on the settlement valuation or the estimated gross produce?

A.—The estimated gross produce.

Q.—Taking a *juar* crop in Ajmer, on an outturn of $8\frac{1}{2}$ maunds an acre, the assessment appears to be only about Re. 1. That is less than 8 per cent. instead of 20 per cent., valuing the crop at Rs. 12 an acre?

A.—*Juar* is a dry crop with an average outturn of 3 maunds per acre, which would fetch about Rs. 2 per maund. The assessment is about 8 annas per acre. The estate holders charge their tenants more than we do.

The President.—Can you give us any advice as to dealing with the question of immigration for the future? We were told yesterday by a witness that emigration is the antidote to famine for Native States.

A.—I should not like to say how many lakhs of rupees have been spent on foreigners in this famine. I would recommend first a meeting with representatives of States concerned to see what general principles are to be laid down, and work out a famine programme of works and agreements as to payments.

Q.—But if a Native State says "We cannot afford to treat famine on the liberal scale of the British Government," what would you do?

A.—Make advances to them as in the last famine.

Q.—If they refuse to take it?

A.—I am afraid we should have to exert our power of preventing gross misgovernment.

Q.—It is very difficult because in Rājputāna the people must emigrate; it has been a custom for hundreds of years?

A.—But we could have a good joint famine programme.

Q.—But a Native State considers it does its duty by giving a person 8 or 10 *chhataks* a day. The British Government gives more. How are you to have a common agreement if the Native States will not give more?

A.—I think after this famine the most callous Native State will have it brought home to it, that its own wage was not what it ought to have been.

Q.—You would introduce your own system into Native States?

A.—Quite so.

Q.—But if they did not act upon it and people came into British territory, would you send them back?

A.—No, that would be inhuman. I would pay the money and take steps to recover it.

Rao Bahādur Syam Sundar Lal.—How would you work the joint famine programme?

A.—The project is not in a very forward condition.

Q.—Would it not be sufficient if Native States had a similar code?

A.—No, unless you had joint projects and joint supervision.

The President.—Do you propose that people of your district might come across to Kishangarh for relief, and people of Kishangarh go across to you—complete reciprocity?

A.—I think something of that kind can be worked out.

Q.—If you had a complete system of famine relief over the whole tract and charged the expenditure proportionately according to population amongst all the States, would not that be acceptable?

A.—Yes, to us here and I would hope to the States also.

[The witness subsequently wrote :—]

I should like to supplement the evidence [as to the different wage scales and systems followed by a brief note.

We started test-works in Ajmer in September 1899 on the following scales of wages :—

	Ordinary.	Minimum.
Diggers	20 <i>chhataks</i> ...	12 <i>chhataks</i>
Carriers	15 <i>ditto</i> ...	12 <i>ditto</i> .
Working children (8—12)	8 <i>ditto</i> ...	7 <i>ditto</i> .
Adult dependants ... ..	...	12 <i>ditto</i> .
Non-working children ... ..	...	7 and 5 <i>chhataks</i> .

Payments were daily and by results, save that a minimum wage was given. A Sunday minimum wage was given also. The numbers of workers and dependants had risen to 24,000 by October 1899.

The scarcity scale sanctioned in March 1899, was then applied but for a very short time. The wage scale was as above, but no minimum wage was given save to adult dependants. Non-working children were, to a great extent, sent to civil kitchens near works. Under this scale the numbers fell at first to 17,000 and had gradually recovered to 22,000 in the third week of November. This scale allowed also a maximum wage.

Then a fresh classification and wage scale was introduced. This scale gave—

To diggers	...	...	...	...	20 <i>chhalaks</i> .
To carriers	...	...	...	...	16 <i>ditto</i> .
To working children (10-14)	...	...	...	...	10 <i>ditto</i> .
To adult dependants	...	...	...	...	12 <i>ditto</i> .

This scale raised the carrier's wage. It did not raise the working children's wage as we raised their age. The maximum wage was done away with and no minimum wage was given, save for adult dependants.

Non-working children were sent to kitchens.

Numbers rose under this scale from 22,000 at the close of November to 33,000 at the end of December.

Then we applied the North-Western Provinces wage scale, but we did not give the maximum wage which that Code allows, nor did we give the minimum wage, save to adult dependants. We paid by results. Numbers were fairly constant, with a tendency to fall (33,000 first week in January, 28,000 second week in February). By the third week in February 1900 a reduction of wage on the North-Western Provinces scale, calculated to represent 25 per cent., was in force. Numbers fell to 19,000 and remained substantially at that figure until April 1900 when we gave the minimum Sunday wage. Then numbers rose to 26,000 and continued to rise.

*Commissioner of Ajmer-Merwara's Answers to
Questions drawn up by the Famine Commission,
1901.*

INTRODUCTORY.

1. Very anxious indeed. Merwara had 7,000 persons on relief works in June 1899. In Ajmer in a limited area in the north of the district 747 persons were on relief at the same date. Works had been open in both cases from November 1898.

In 1897-98 the year had been an average year, though the *kharif* was partially damaged by locusts and the *rabi* by frosts and high winds. In 1898-99 the Merwara rainfall was 10·66 inches only, and that in Ajmer 14·05. There was an extensive failure of the *kharif* harvest on dry lands, and the *rabi*, which is chiefly irrigated, was much restricted.

The cultivation figures of these two years are as follows:—

NET AREA CROPPED.		
	Cultivated area. Acres.	Portion irrigated, Acres.
1898-99 . . .	356,992	112,322
1899-1900 . . .	230,773	51,520

The dry crops partly failed in 1898-99 (largely so in Merwara): in 1899-1900 the dry crops failed entirely.

2. The *kharif* sowings were below normal in Merwara in 1899: otherwise they were normal. The figures for 1888-89, which was a year of average rainfall with no special features, are taken to represent our normal cultivated area.

The figures compare as follows:—

	1899. Acres.	Normal. Acres.
Ajmer	81,778	86,190
Merwara	49,851	60,936
TOTAL	131,629	147,126

A statement in somewhat more detail is sub-joined. The figures are for the Khalsa area.

*Statement showing the area cultivated, and outturn of the cultivated area during (1306 Fasil
and 1307 Fasil) 1896-99 and 1899-1900.*

Tahsil.	(1888-89). Normal, 1297 Fasil.		1898-99.			1899-1900.		
	Cultivated area in acres.	Outturn in maunds.	Cultivated area in acres.	Outturn in maunds.	Percentage of outturn.	Cultivated area in acres.	Outturn in maunds.	Percentage of outturn.
				<i>Kharif</i>	<i>Harvests.</i>			
Ajmer	86,190	2,78,854	81,139	2,55,229	91·52	81,778	68,208	24·46
Beawar	40,245	1,76,590	40,220	90,468	51·52	36,431	7,113	4·05
Todgarh	20,691	1,35,825	20,238	93,726	69·29	13,420	8,784	6·49
				<i>Rabi</i>	<i>Harvests.</i>			
Ajmer	41,128	3,56,556	24,823	2,54,356	71·33	11,406	1,30,705	36·63
Beawar	21,003	2,18,340	13,450	72,033	33·76	2,580	10,868	5·09
Todgarh	14,488	1,87,560	7,501	64,690	34·49	1,387	10,704	5·72

3. (a) 22 inches. Very uncertain. Has varied from 37 to 6·58 inches during the past eight years.

(b) 1898. Merwara . . . 9·68 inches.

Ajmere . . . 13·32 „

1899. Merwara . . . 4·33 „

Ajmer . . . 7·97 „

28 per cent.

(c) Early in September.

(d) 1899. Merwara—June . . 2 inches.

July . . 1·20 „

August . . 6 „

September 1·7 „

Ajmer —June . . 3·76 „

July . . 3·58 „

August . . 4 „

September 5·9 „

The rains, which usually fall about the beginning of July, began early and ceased early.

The rainfall is so capricious that there can hardly be said to be an average distribution.

4. The percentage of the Kharif harvest of 1899 on a normal harvest was as follows :—

Ajmer 24·46 per cent.

Merwara 5·27 „

5. (a) 40 per cent.

(b) 14·50 „

(There is a mistake on page 3 of my Famine Report. The number of Khatiks, Raigars, Chamars, and Balais, all of whom are mainly supported by agricultural labour, should be 73,379.)

PRELIMINARY ACTION.

6. The former.

7. I only assumed charge of the districts at the end of August 1899. The machinery of relief had then been for some time in motion in Merwara, where there were 27,185 persons on relief. In Ajmer we restarted test works in the third week in September 1899. The main observed fact was the failure of the *kharif*, which by that time had generally withered on the ground, after a poor season in the previous year. By that time also the labouring population were commencing to press in on the towns, and immigration from Native States was commencing. It was then too more than probably that there would be no rain for *rabi* sowings. It was known that the failure of the *kharif* had extended over the whole of both districts and pretty clear that we were committed to a famine of a very serious kind.

8. *Merwara*.—Works were first started in Merwara in November 1898, in a limited area, where the failure of the *kharif* harvest of 1898 had been most pronounced. Admission to the works, which were small departmental works, was by ticket.

These were granted by the Patwari or Circle Officer, under supervision, and the ticket certified that its holder was known to have no means of supporting himself. I should mention that in Merwara the villages are all Government villages, and the revenue organization is close and good. Advances under the Land Improvement Loans Act were made in Merwara in 1898-99 to the amount of R45,462. These were disbursed chiefly from October 1898 to February 1899, with the view of enabling tenants to deepen their wells or sink new ones.

Ajmer.—The early test works were opened in November 1898, and closed in July 1899. The largest attendance was 747 only, and the works were confined to a limited area. Admission was by ticket. In Ajmer we restarted the test works, departmental works, in the third week of September 1899. An attempt was made to reintroduce the ticket system, but it was found impracticable to work it. The works were restricted at first to the "*khalsa*" area, *i.e.*, the north-east and central portions of the district. The Istimrardars, who hold two-thirds of the district, are obliged by the Famine Code to support their tenantry. Loans were first advanced to the Istimrardars under the Land Improvement Loans Act in February 1899, and continued to be advanced during 1899-1900. The amount of the loans granted in this class in that year amounted to R61,425. In Ajmer, then, the only test on the early works after September 1899 was willingness to do the task prescribed for the wage given.

The test work scale was too liberal. Payments were by results, but a minimum wage was allowed. A minimum wage was given on rest days. Adult dependants and non-working children were not admitted. Wages were paid daily in Ajmer, but not in Merwara. The wage scale is subjoined.

	Ordinary Wage.	Minimum.
Special Class	2 pice more than Class I	...
Class I, Diggers . .	20 chittaks.	12 chittaks.
" II, Carriers . .	15 "	12 "
" III, Working children 8-12 years.	8 "	7 "
" IV, Adult dependants .	...	12 "
" V, Non-working children over 8 years.	...	7 "
Under 8 years.	...	5 "

9. (a) *Merwara.*—There was a programme in 1898, but the projects had not been carefully examined. Surveys and estimates had not been made out and sanctioned. It was supplemented in the rains of 1898, and then covered 43 projects, providing labour for 28,000 persons for three months. In July 1899

a second programme was prepared, providing labour for 47,750 persons which, it was computed, would suffice until September 1900. It did not do so, and fresh projects were added, including two railway works. From November 1899 until June 1900 labour and the works were running a race, and projects were taken up long before the estimates had been sanctioned.

(b) *Ajmer*.—The programme in August 1899 included 12 new tanks and 43 tanks repair schemes. Plans and estimates were sanctioned in some cases only. Nine of the tanks could not be taken up, and the tank repairs were unsuited to the employment of famine labour on a large scale.

Metal collection on roads was largely taken up, the estimates going in for sanction later: new railway projects as well as other projects were added. Here, too, we had to work on a hand-to-mouth system, although there was never the same pressure as in Merwara.

(c) No, as to both districts.

10. The original programmes included a few large works, but as regards tanks, the great majority of the large projects were found to be impracticable. They included a number of small works, tank repairs, which were found unsuitable when large masses of labour had to be dealt with. There was no programme of village works ready in reserve. The original programmes included seven large road projects.

11. <i>Merwara</i> .—E x t e n s i o n of grazing and grass cutting in Government Forests . . .			October 1898.
Test works			November 1898.
Village relief			June 1899.
Opening of forests to grazing . .			July 1899.
Kitchen relief			August 1899.
Organisation Private Charity (in Beawar town first, and later over all the Pargana) . . .			September 1899.
Forwarding Depôts			December 1899.
Poor-house (maintained privately from September 1899) . . .			February 1900.

<i>Ajmer</i> .—Test works (on a small scale)	November 1898. to July 1899.
Test works restarted	September 1899.
Organisation Private Charity in Ajmer, Nasirabad and Kekri	September 1898.
Forwarding Depôts	October 1899.
Poor-houses	
Kitchens	
Village Relief	

12. None of the responsible officers who were in charge of the early famine arrangements of 1898 are now here.

In Merwara the local revenue staff closely watched the condition of their charges and furnished the prescribed reports:—

- (a) Village relief commenced after close examination of the villages in April 1899. Its administration is described elsewhere.
- (b) Loans to agriculturists for wells and improvements were freely given.
- (c) Local charity was first organised in September 1899.
- (d) Would seem to be covered by the earlier part of the answer.

The Commissioner and Assistant Commissioner, as well as the officers under them, were constantly on tour. I understand that my predecessor, Lieutenant-Colonel A. P. Thornton, visited every village in Merwara in the touring season of 1898-99. The special famine staff was appointed in January 1899. Mr. Heale, the first Staff Corps Famine Officer, joined his appointment in April 1899. The Assistant Commissioner was relieved of his judicial duties.

Ajmer.—In Ajmer the local revenue staff in the same way kept their charges under close observation and report, and special information was called for from the Istimrardars.

- (a) Village relief was started in the Government villages in October 1899, after a close examination of the villages. The obligation of the estate-holders to provide for their people was brought home to them, while loans were granted to them, to enable them to start works and help their people.
- (b) Is partly covered by what is written above. In the Government area also loans were given to assist in the employment of local labour, but to an inconsiderable extent.
- (c) The organisation of local charity commenced in September 1899. In Ajmer I carried out the organisation: elsewhere the Assistant Commissioner established small Committees and managed them.
- (d) The additional famine staff had been appointed by October 1899, and in November two Staff Corps Officers joined us for inspection.

13. In 1898-99, in Merwara, Rs 45,462 under the Land Improvement Loans Act.

In 1899-1900, in Ajmer, Rs 65,642, of which Rs 61,425 were advanced to estate-holders under the same Act. Under the same Act, in Merwara, Rs 21,492 were advanced in 1899-1900.

These advances were made to tenants where they were not made to estate-holders. The improvements, for which they were made, were in the case of tenants generally wells, in the case of estate-holders, tanks.

In 1899-1900 advances to the following amounts were made under the Agriculturists Loans Act:—

Merwara, Rs. 582 in July 1899, for the purchase of seed and cattle.

Ajmer Rs. 953 for purchase of seed and maintenance.

These advances are wholly recoverable.

14. Yes, all over Ajmer-Merwara.

Depth below surface of water in selected wells in September 1899 :—

Merwara	{ Wells benefited by tanks .	32.7 feet.
	{ Other wells	35.8 "
Ajmer	{ Wells benefited by tanks .	21.5 "
	{ Other wells	35 "
Average	{ Wells benefited by tanks .	29.8 "
	{ Other wells	35.6 "

Yes. The deepening of the wells in Merwara or the digging of new ones were measures that were not successful in securing the crop on the ground, but they were successful in the two other respects. There is no record of the number of labourers supported temporarily; the Assistant Commissioner puts it at 18,000.

In Ajmer the advances were small, save to estate-holders. The estate-holders aided by these loans were supporting on works in 1899-1900 a number of workers that rose from 1,702 in the second week in December, when their relief began to be extensive, to 5,171 at the end of March.

15. The demand for labour was the first criterion for the need for relief in Ajmer from September 1899. In Merwara selection also was applied from November 1898 till the close of 1899 (see *ante*). The works first taken up were the test works already noticed: thereafter works on a "scarcity" scale. Neither the District Board nor Municipal bodies carried out any works for the employment of famine labour, save in the one case of the Beawar Municipality, which, for a short period in November-December 1899, opened a test work. It was under Municipal supervision.

16. Subjoined are Appendices V-A and V-B of the Ajmer-Merwara Famine Code.

APPENDIX V-A.

(SEE SECTION 57)

TABLE A.

Table of Standard Tasks for Ordinary Earthwork.

Nature of Work.			QUANTITIES IN CUBIC FEET.								REMARKS.	
			Adult males.			Adult females.			Working Children.			
			A.	B.	C.	A.	B.	C.	Maximum.	Minimum.		
Excavation only, for all leads and lifts.												NOTE. — Women should not be employed on excavation if men are available.
Black or red soil			120	90	60	60	45	Nil	Nil	Nil		
Soft Muram			80	60	40	40	30	Nil	Nil	Nil		
Average Muram			60	45	30	30	22	Nil	Nil	Nil		
Hard Muram			40	30	Nil	Nil	Nil	Nil	Nil	Nil		
Carriage only.												NOTE.—The tables are calculated on the following data :— A man will walk fourteen miles in a day's work carrying a basket containing one-third of a cubic foot for half the distance. A woman will do two-thirds of the work of a man. A child will do one-third of the work of a man. A lift of five feet is reckoned equal to a lead of one hundred feet. The task for Class B. = three-quarters of the task for Class A. The task for Class C. = one-half of the task for Class A. Carriage includes lifting the basket from the ground.
Lead in feet.		Lift in feet.										
Over	0	0 to 5 feet.	120	90	60	60	40	40	40	20		
"	100		60	45	30	40	30	20	20	10		
"	200		40	30	20	27	20	14	14	7		
"	300		30	23	15	20	15	10	10	5		
"	400		24	18	12	16	12	8	8	4		
"	500		20	15	10	13	10	7	7	3		
Over	0	5 to 10 feet.	60	45	30	40	30	20	20	10		
"	100		40	30	20	27	20	14	14	7		
"	200		30	23	15	20	15	10	10	5		
"	300		24	18	12	16	12	8	8	4		
"	400		20	15	10	13	10	7	7	3		
"	500		17	13	8	12	8	6	6	Nil		
Over	0	10 to 15 feet.	40	30	20	27	20	14	14	7		
"	100		30	23	15	20	15	10	10	5		
"	200		24	18	12	16	12	8	8	4		
"	300		20	15	10	13	10	7	7	3		
"	400		17	13	8	12	8	6	6	Nil		
"	500		15	11	7	10	7	Nil	Nil	Nil		
Over	0	15 to 20 feet.	30	23	15	20	15	10	10	5		
"	100		24	18	12	16	12	8	8	4		
"	200		20	15	10	13	10	7	7	3		
"	300		17	13	8	12	8	6	6	Nil		
"	400		15	11	7	10	7	Nil	Nil	Nil		
"	500		13	10	7	9	7	Nil	Nil	Nil		

APPENDIX V-B.

(SEE SECTION 57.)

TABLE B.

Standard Tasks for Typical Gangs on Famine Relief Works.

Description of Work.	Conditions.	TYPICAL GANGS.				Total units per gang.	TASK FOR RELIANT WORKERS OF					
		Men.	Women.	Children.	Total.		A. Class.		B. Class.		C. Class.	
							Per unit.*	Per gang.	Per unit.*	Per gang.	Per unit.*	Per gang.
							c. ft.	c. yds.	c. ft.	c. yds.	c. ft.	c. yds.
Embankment	Lead up to 20 years; lift up to 2 years. { Sandy loam Black cot- ton soil. Gravelly soil.	40	40	20	100	200	15.8	152	11.85	114	7.0	70
		50	40	10	100	200	14.6	157	10.95	117.0	7.3	75.5
		50	40	10	100	220	13.5	145	10.13	109.8	6.75	72.5
Cutting side- drains for roads.	{ Soft gravel. . . . Hard „ Rocky „	50	40	10	100	290	16.74	180	12.65	135	8.37	90
		60	40	...	100	320	13	164	9.75	115.6	6.5	77
		100	...	...	100	400	2.8	34	1.73	23.6	1.16	17
Breaking and striking road metal.	{ Collection within 100 yards. At quarry or collecting within a few yards.	10	60	30	100	190	2.6	17.6	1.88	13.2	1.25	8.8
		10	60	30	100	190	4	28	3	21.1	2	11
Digging and heap- ing gravel.	Lead up to 50 yards	60	30	10	100	510	9	103	6.75	77.5	4.5	61.6
Spreading metal	Metal being heaped at roadside	20	60	20	100	220	16.2	132	12.16	90	6.1	66
Spreading gravel	Including watering and tamping.	20	60	20	100	220	9.6	78	7.2	68.7	4.8	39

* The unit adopted is 1 child; and 1 man = 2 women = 4 children.

Labourers were classed as regards tasks as "able-bodied but unprofessional": sex and previous occupation were allowed for.

17. On *test* works payments were by results, save that a minimum wage was given. A minimum was also given on rest days. No allowances were given to dependants. On *scarcity* works payments were strictly by results. A maximum wage, twenty-five per cent. in excess of the ordinary wage, was earnable. Allowances were given to dependants. No rest day wage was given. The maximum wage was withdrawn in October 1899. No minimum wage was given.

In April 1900 we gave a minimum wage on rest days and called the works "Famine Works." We never gave a week day minimum wage from the time when test works were done away with. It was considered that with our labourers, a minimum wage would have encouraged idleness.

18. As the demand for labour continued, and the certainty that the districts would have to undergo a prolonged period of famine until the rains of 1900 became manifest, the test works were changed to regular relief works.

LARGE PUBLIC WORKS.

19. Both large and small departmental relief works. Small village works were not undertaken until May 24, 1900, and then only in Merwara.

20. The departmental works were managed by the Public Works Department under the Commissioner's control, save as regards technical matters, as to which control was exercised by the Superintending Engineer, who is also Secretary in the Public Works Department to the Agent to the Governor-General in both Rajputana and Central India.

No. The provision of establishment was a matter of great difficulty to the Public Works Department.

The works were opened without delay, and the tools and plant available were never insufficient.

21. Yes. The North-Western Provinces Code maximum of 6,500 workers and dependants (from January 1900). The number was occasionally exceeded: when this was so to a pronounced extent labour was drafted to other charges.

22. Yes. A list of the establishment is subjoined.

No.	Officials.	Monthly salary.	REMARKS.
1	Famine Naib-Tahsildar in charge . . .	R60 + 15 horse allowance.	
2	Public Works Subordinates . . .	R30 to 60 + 15 horse allowance.	One for each work in the charge.
3	Cashiers . . .	R30 to 40 .	One for each work in the charge.
1	Hospital Assistant .	R15 horse allowance.	In charge of Hospitals at each work in the "charge," and inspecting each on alternate days.
3	Clerks for Famine Naib-Tahsildars . . .	R15 . . .	One at each work.
3	Receiving Clerks . . .	R10 . . .	For receiving new comers, etc., at each work.
3	Clerks for Public Works Subordinates. . .	R15 . . .	For keeping daily reports, etc., 1 at each work.
6	Moharrirs . . .	R10 . . .	One to 10 gangs.
55	Minster Clerks . . .	Annas 3 . . .	Per diem; one for every 2 gangs.
23	Bhumias . . .	R5 . . .	4 in charge of treasure at each camp, and 2 as peons, and 9 as conservancy, bazar, and water mates.
3	Kitchen Superintendents	R10 to 12 .	One for each work kitchen.
3	Hospital Clerks . . .	R10 . . .	One for each work hospital.
3	Store Clerks . . .	R6 . . .	One for each store godown.

Chaukidars and sweepers were employed as considered necessary by the Famine Naib-Tahsildar receiving the wage of their class.

Hutting materials were easily obtained. As to conservancy, sanitation and water-supply we followed the provisions of the North-West Provinces Code (September 1899), from the time when it was applied: before that those of the Ajmer-Merwara Code. The Famine Medical Officer had specially to supervise the water-supply, and supervised the medical conveniences provided. As to food-supply the Civil Department posted grain dealers to the works, but it was not easy to send them or to keep them there. The labourers purchased from them, or the nearest village with a bania's shop. The grain sold on the works was poor, but it is probable that there was no good grain in the poor man's market on the works or elsewhere throughout the famine.

23. Admission by tickets continued in Merwara until the end of 1899, when the Mewari invasion and the large numbers reached on the works led to its discontinuance. Thereafter the test was that of willingness to do the work for the wage. No distance was enforced save that applied by calling the morning muster (8 A.M. and 7 A.M.) in the cold and hot weather. Residence was not compulsory. The rule applied (section 62, Ajmer-Merwara Code) was as follows:—

“62. Residence in camp is compulsory for all relief-workers on works, whose home is not within a reasonable distance.”

24. I think that the answer to this question must depend on the degree of the intensity of the famine prevailing in the tract. In Merwara, at the worst of our recent famine, two charges maintaining each 5,000 persons on relief would, supplemented by concurrent gratuitous relief, have served one-sixth of the area; that is to say, they have served 110 square miles. In Ajmer, where the famine was of less intensity, they served one-fifth of the district, i.e., 400 square miles. In earlier and later stages, when famine was less acute, they served a larger area.

The density of the population would affect the answer to this question. In Merwara according to the 1891 census the population was 187.2 to the square mile; in Ajmer, 204. Ajmer has a larger urban population, and the rural populations must be of about the same density. It may be remembered also that our famine relief works and institutions maintained a number of Native State inhabitants.

Applicants for relief on works came from as far as six miles when non-resident. Residents on works came from varying distances. Some were drafted considerable distances from their homes, but the homing instinct is particularly strong in both districts. The kitchens served an area with a radius of probably five miles on the average. Children came early, remained for the day and returned after the afternoon meal.

25. The Executive Engineer managed the departmental works under the general administrative control (save in technical matters) of the Commissioner. The charge establishment was under the

orders of the Executive Engineer. There was no administrative matter which the Commissioner could not regulate, but technical matters, *e.g.*, the quantity and quality of the work done, were for disposal in the Public Works Department.

26. A Famine Naib-Tahsildar (salary R60 and R15 horse allowance) was appointed to each charge by the Commissioner. Some of these men were obtained from the North-West Provinces, and some were appointed from the local revenue staff. The latter were more satisfactory. The Naib-Tahsildar controlled the Public Works Department subordinates on the charge, in the following matters :—

The Famine Naib-Tahsildar was general supervisor of the works in his charge, and was responsible for—

1. Prompt admission and register of applicants.
2. Classification and treatment of workers.
3. Provision of shelter.
4. Correctness and proper payment of wages.
5. Market arrangements and supply of food.
6. Adequate supply of good water and proper disinfection of wells.
7. Hearing and investigation of complaints.
8. Hospital and sanitary arrangements.
9. Care of children and infirm persons presenting themselves at the work.
10. Prompt submission of accounts.
11. Immediate report to Executive Engineer through the Sub-divisional Officer of the outbreak of any epidemic disease.
12. Management of the work kitchen.

Yes.

27. The prescribed tasks were applied in the Public Works Department: not by the Famine Naib-Tahsildar.

28. Gangs numbered at first 100 and later 50. The former number was unwieldy.

Gangs were formed by villages and families as far as possible. Every gang had its distinguishing number and prescribed place for mustering and its working area. Each gang had its own muster clerk and mate. Each gang contained, as far as was practicable, the proportion of diggers and carriers required for the task. In some cases, towards the end of the famine, when the audit labourers to some extent found agricultural employment, the large numbers of the dependants made it necessary to make large special gangs of this class.

29. We had at different periods four classifications of labour and wage scales. These were as follow :—

November 1898 to March 1899.

	Chittals.
Class X, Specials	21
„ Y, Diggers (men only)	19
„ Z, Carriers (women)	13
Working children (7-12)	8

March 1899 to September 1899.

	Ordinary.	Minimum.
	Chittaks.	Chittaks.
Specials, 2 pice more than Class I.		
Class I, Diggers (men only)	20	12
„ II, Carriere	16	12
„ III, Working children (8-12)	8	7
„ IV, Adult dependante	12	12
„ V, Non-working children over 8.	.....	7
Non-working children under 8.	.....	5

A maximum wage of 25 per cent. over and above the ordinary wage was earnable by a proportionate increase of task.

September 1899 to January 1900.

	Ordinary.	Minimum.
	Chittaks.	Chittaks.
Specials, 2 pice more than Class I.		
Class I, Diggers men only)	20	12
„ II, Carriers	16	12
„ III, Working children (10 to 12)	10	8
„ IV, Adult dependants	... ..	12
Children in arms, one pice extra to mother.		

January 1900 to close.

	Ordinary.	Minimum.
	Chittaks.	Chittaks.
A. Specials, 2 pice more than Class B.		
Class B, Diggers (adults : men only)	19	12
„ C, Carrier, adults and children above 14 (both sexes.)	14	12
„ D, Children between 10 and 14 (both sexes.)	10	8
„ E, Adult dependants	.....	12
Children in arms, one pice extra to mother.		

Our classification differed from that of paragraph 445 of the Famine Commission's Report in that—

We did not include any women in the diggers' class.

We admitted into the carriers' class only children above 14 years of age.

We included in our working children only children above 10 years of age.

Our non-working children included children under 10 years of age.

Our wage scale (grain equivalent) differed from that of the Famine Commission as follows :—

	<i>Local.</i>	<i>Commission.</i>
	Chittaks.	Chittaks.
Diggers . . .	*19	20 *Men only.
Carriers . . .	14	15
Working children . .	†10	8 †Older children.
Dependants . . .	12	...
Non-working children (i) .	6	7
„ „ (ii) .	4½	5

Our classification was thus lower than that of the Commission, and our wage scale lower also. From an administrative point of view our classification had an advantage in simplicity, and we had also the advantage (a great one to us, regard being had to the pressure on our works establishment) of getting children below the age of 10 off the works. From the larger point of view, that which contemplates the condition in which the people were brought through this severe and protracted famine, I think that we may claim that experience justifies our departure. As a whole, I believe our people to have been brought through the famine in fair condition. The mortality figures, which will be discussed later, will throw more light on this subject. The Merwara people on works did not succumb to the cholera epidemic of May 1900 to the extent that the Ajmer people did. The Merwara death-rates of 1900 were lamentably high, but the uncertain foreign element affects them; nor does the famine fever epidemic (only just over) appear to have caused such mortality among them. The adult dependants, who did practically no work are the class which is believed to have suffered most from the fever epidemic on present information, had the Famine Commission's wage. I believe that the wages which we gave were sufficient, and that our diggers, carriers and working children came through the famine fairly well. I was doubtful about the women's wage (14 chittaks), as we were not admitting women to the digging class. The women were more than once reported to be in poor condition. From a financial point of view our departures from the Commission's classification and wages were undoubtedly economical, and saved money. They were supplemented by the further approximate 25 per cent. reduction of wages ordered in February 1900. It would not be possible to frame an estimate of any value as to the amount of money really saved.

30. We excluded women from the digger class. Apart from this, wages were earned irrespective of sex. I think that we rightly excluded women from the diggers. We did not, with some temporary exceptions, employ them as diggers. Digging is not work on which women, within my observation, are ordinarily employed in normal conditions.

I think that a woman employed in carrying rightly earns the same wage as a weakly adult

male or a boy between 10 and 14, and that lower down the scale adult dependants, whether men or women, rightly got the same ration, and the same remark applies to non-working boys and girls.

I think that in dealing with women it has to be remembered that the women, even on a famine work, have certain household work (cooking, grinding, etc.) which the male worker avoids. Again, the male worker, in these parts at any rate, takes the lion's share of the joint earnings. A woman, too, is naturally solicitous for her children, and would sacrifice a portion of her own ration for them. I am therefore in favour, generally, of equalisation, although I recognise that there is much to be said against it. We drew one sharp distinction only, and, as I have said in my last answer, I am doubtful if our carriers' wage for women was sufficient. I would have placed it at 15 chittaks. Our carriers' gangs were largely composed of women.

The absence of distinction that has been mentioned led to no difficulty. It was an advantage to have fewer classes. I doubt if our establishments could have dealt with more. Financially something might be saved by giving females throughout the classes lower wages than the males. I doubt, however, if much would really be saved in this way.

31. Tasks were fixed by the Code, but payments throughout were made by results. A full task earned a full ordinary wage, a three-quarter task a three-quarter wage and a half task a half wage. No wage was given for less than a half task, such work as was done being carried over to the next working day. $12\frac{1}{2}$ per cent. above and below the task or the portion of it that was done was taken as the point of demarkation (see proportionate table of wages, page 31, North-Western Provinces Code, September 1899.)

We had but one system.

32. No and yes. I am much in favour of payment by results. We had to lower tasks in the Kekri Circle in March 1900, when the workers were found to be in very poor condition, and again in the cholera epidemic of May 1900. I am confident that, *if started in time*, relief can be adequately afforded in severe famine by works conducted throughout on a system of payments by results.

33. With regard to *tasks*, as the Ajmer Famine Code, 1897, was followed when relief works were started, so tasks were fixed by Appendix V "A" and "B" of the Code, labourers being classed as able-bodied, but "unprofessional." With regard to *earthwork*, the task fixed in this Code has been followed throughout the famine for "carriers," *viz.*, 60 cubic feet per 100 feet lead. Lift has not, however, been considered except in the case of deep and narrow foundations. For *diggers* 90 cubic feet of earth-work has been the most usual task. The earth excavated was generally hard earth and clay, for which 30 cubic feet is the task in the North-Western Provinces Code.

The following is the table of the *digger's* task enforced :—

<i>Soil.</i>	<i>Task.</i> Cubic feet.
Sand	200
Light earth, mixed with sand . . .	150
Medium earth	110
Hard earth and clay	90
Muram and gravel	60
Rocky soil	30

For stone metal collection :—

	Cubic feet.
1 "Digger," Class B, broke and stacked at quarry . . .	12
1 "Carrier," Class C, broke and stacked at quarry . . .	5
1 "Working child," Class D, broke and stacked at quarry . . .	2½

For quarrying and feeding the breakers with stone :—

	Cubic feet.
1 Class B supplied	50
1 „ C „	25
1 „ D „	12

For kankar collection the task varied with the quarries, where kankar was easily procurable :—

	Cubic feet.
1 Class B, quarried, cleared and stacked at quarry . . .	10
1 Class C, quarried, cleared and stacked at quarry . . .	5
1 Class D, quarried, cleared and stacked at quarry . . .	2½

Where kankar was difficult to get, the task was as light as :—

	Cubic feet.
1 Class B	7
1 „ C	3½
1 „ D	1¾

The carriage of kankar and metal from quarries to roadside was generally done by carts by contract, but latterly in certain parts carts were unprocurable, and the carriage had to be done by labour. This was expensive, but there was no other alternative. The tasks for this were :—

- 4 Class "D" carried and stacked 25 cubic feet for one furlong,—
- 6 Class "D" carried and stacked 25 cubic feet for two furlongs,
- 8 Class "D" carried and stacked 25 cubic feet for two furlongs, or
- 16 Class "D" carried and stacked 25 cubic feet for one mile.

When metal was carried by carts the *re-stacking at roadside* was carried out by famine labour with the following tasks :—

Ordinary. Light.

		Cubic feet.	Cubic feet.
1 Class B	.	100	75
1 „ C	.	75	50
1 „ D	.	50	25

In framing rules for fixing tasks, it is very necessary to have as simple a method as possible, which subordinates can calculate out quickly and accurately, and which can be easily recorded and checked.

As stated above, labour was divided into *gangs*, the basis of all famine organization. These gangs were all of approximately the same number. At first the number was 100, and afterwards it was reduced to 50. The different classes of labour were distributed in proportion as far as possible in each gang. The gang was treated as a “unit”; the task was given for each as a unit separately, and each member of a gang was paid by the result of the work done by the entire gang to which he belonged.

In calculating *tasks* one class “B” (digger) was considered equal to two Class “C” (carriers), or four class “D” (working children, 10-14). “D” class was accepted as the “task unit,” the number of a gang was reduced to this unit, and the task fixed accordingly. An example is subjoined :—

Earthwork.—Hard soil task for Class “B” (Digger) 90 cubic feet, and for carriage with 300 feet lead, $4\frac{1}{2}$ Class “C” carry 90 cubic feet ($1\frac{1}{2}$ “C” for each 100 feet lead)=13 Class “D” units dig and carry 90 cubic feet.

	B.	C.	D.
Suppose the gang consists of—	11	27	10
	x	x	
	4	2	0

$$44 + 54 + 10 = 108 \text{ Class "D" units.}$$

The task for the gang is therefore $\frac{108}{13} \times 90$ cubic feet=748 cubic feet.

No allowance was made for the distance that workers had to come. We increased the tasks in the Ajmer district (outside the Kekri Circle) towards the close of the famine, the diggers’ tasks being as high as 120 cubic feet.

Our dependants on works, a numerous class, were not paid by results. They did nominal work, and were on the minimum wage (12 chittaks). This will be remembered in connection with my answer to the previous question.

34. In my observation the wages adopted from December 1899 were adequate and no more, although the experience gained in the famine leads me to think that the carriers’ wage was a trifle low,

and that of the dependants slightly excessive. I believe that the workers were, as a whole, brought through the famine in fair condition, although the cholera epidemic of May and the very heavy fever epidemic of the autumn and closing months of 1900, caused great mortality. That mortality was not confined to those on relief, although they included the classes that suffered most.

Dependants saved something on their earnings. Savings by workers were not observed by myself or reported to me. The Famine Commissioner, who was kind enough to inspect two of our large works in the cold weather, noticed one or two cases of considerable family earnings, but no similar cases were brought to notice later. Copper coin returned freely to the grain dealers on the works, who occasionally would only receive it at a discount.

35. A rest day wage was given on the early test works, and again from April 1900. A maximum wage (25 per cent. increase for a corresponding task) was allowed from March 1899 to September 1899. I prefer the rest day to the maximum, but our local difficulty in finding sufficient work influences my opinion. I would give neither the one nor the other until the famine was in its last stages, and that is what we did here.

36. The adult dependants had the minimum wage in return for nominal work. That was our only minimum wage save the rest day minimum when it was given. I consider that the adult dependants' wage might be slightly reduced. We did not use the penal wage, and our practice in the matter of fines for short work has already been mentioned.

37. Yes, on the test works, which, as already mentioned, had over liberal conditions. We did not use the penal wage.

38. In Merwara twice a week until May 1900, when daily payments commenced. They were not completely introduced in Merwara until August 1900. There were considerable difficulties in their introduction. In Ajmer we had daily payments on the test works of the autumn of 1899: thereafter bi-weekly payments until May 1900, by which time daily payments had been generally introduced on the Ajmere works.

There is no doubt that daily payments are best. Before we introduced them there was a good deal of pledging of utensils to the grain dealer on the works.

39. Before daily payments were introduced newcomers received a minimum wage from the Naib-Tahsildar's imprest, or were temporarily drafted to gratuitous relief. The former plan did not work well, as recipients often absconded, and presented themselves again a day or two later.

The last answer may kindly be referred to. The workers had no credit until they were permanently incorporated in a gang.

40. To individuals. I prefer individual payments.

Date.	Total number of gangs.	NUMBER OF GANGS GETTING			
		Full wage.	$\frac{1}{2}$ wage.	$\frac{1}{3}$ wage.	Less than $\frac{1}{3}$ wage.
(a) <i>Brighiawas new tank.</i>					
1st May 1900 . . .	41	29	7	4	1 .
2nd „ . . .	49	30	10	1	8
3rd „ . . .	39	28	10	1	...
4th „ . . .	39	31	6	2	...
5th „ . . .	39	27	10	1	1
7th „ . . .	41	35	6	...	...
8th „ . . .	43	30	10	3	...
(b) <i>Bandanwara-Masuda Road.</i>					
3rd May 1900 . . .	50	47	3	...	...
4th „ . . .	51	46	5	...	...
5th „ . . .	50	45	5	...	...
6th „ . . .	50	50	...	...	...
7th „ . . .	59	54	5	...	...
8th „ . . .	59	57	2	...	...
9th „ . . .	59	57	2	..	...
(c) <i>Kankar Metal Collection, Ghugra Camp, Kishangar Road.</i>					
1st May 1900 . . .	19	18	1	...	...
2nd „ . . .	19	17	2	...	...
3rd „ . . .	20	14	3	3	...
4th „ . . .	20	19	1	...	...
5th „ . . .	20	19	1	...	...
7th „ . . .	20	20	...	...	...
8th „ . . .	20	20	...	...	...

42. We applied the North-Western Provinces "intermediate" system as described in paragraph 198 of the Famine Commission's Report, except that we gave a maximum wage for a few months only, and a Sunday wage only for the few months when the famine was at its height. We fined to an extent further than that described, as no work earned no wage, and less than half task was carried over to the next day. We fed non-working children in kitchens.

43. Twenty-five per cent. additional wage for a task increased to a like extent. Children above 10 years of age were admitted to works. Babies in arms remained with their mothers on the works, the latter receiving the extra daily piee. Non-working children were fed in the works kitchen or in an adjacent civil kitchen. Weakly persons capable of light work were admitted as dependants (Class E). They did a nominal task and received a minimum wage. We did not attempt piece-work at favourable rates with them.

44. No, save that contracts for hutting and shelters were given out.

45. Muster rolls were kept up throughout the famine.

46. Until February 1900 current prices were declared in the Civil Department for each work on the basis of the price obtaining for the cheapest sound grain in common use. On the price fixed the wage price was taken at the nearest pice, $1\frac{1}{2}$ pies and upwards being the point at which the higher multiple was adopted. From February 1900 the prices at which wages were to be paid were fixed over given groups into which the works were divided by the Commissioner. The prevalent market price of the cheapest sound grain in common use having been reported for the Circle, the wages for the Circle were fixed at a price which, allowance being made for the stricter conditions of the works, represented as far as was practicable a reduction of 25 per cent. on the wages earnable on the market price. The wages for the Circle were altered on the reports of the Assistant Commissioners and Executive Engineers, and on similar recommendations works were moved from one group to another.

47. The following steps were adopted in opening a relief work, etc.—

Selection of the land required for the camp three or four days in advance of its occupation.

Demarcation of the sanitary area. Selection of the wells required and the posting of chaukidars on them.

Disinfection of the wells.

Erection of the establishment huts, hospital store enclosure and kitchen enclosure. These were put up by contractors. The labourers brought their own hutting material with them. Marking out of the kitchen enclosure. Provision of tools.

When the work was open the following was the daily routine observed :—

Gangs were formed, each numbering about 50 workers, and each with its own mate, muster clerk, and distinguishing number. Each gang had its own working area, where it assembled in the morning for muster at the appointed time, namely, 7 A.M. in hot weather, and 8 A.M. in winter. After muster had been taken the Public Works subordinate visited each gang in turn, and fixed and set out the task for each, recording the same in his note book reserved for this purpose, and informing the mates what was required of their respective gangs, each member of a gang being paid by the result of the work done by the entire gang. At 12 o'clock there was an interval of rest till 2 o'clock; at 5 o'clock the Public Works subordinate visited each gang again, measured the work and recorded the same in his measurement book, and informed each mate of the wage earned. An evening muster

was taken and the gangs were paid the wage earned for the previous day, and the work was closed between 6 and 7 P.M. In the evening the sub-overseer called the Moharrirs (1 to 10 gangs) and muster clerks (1 to 2 gangs), and had the wage earned by each gang as per result of work measured, entered in the Muster Rolls, the Moharrirs filling in the abstracts, and preparing Form D VI, showing the amount to be paid next day to each of the gangs in their charge. After check with the Muster Rolls the sub-overseer countersigned these, and forwarded the counterfoil to the cashier. On the following morning the cashier placed the amount earned by each gang in separate money bags, each bag being marked with the distinguishing number of the gang to which it referred. At 5 P.M. the cashier proceeded with his money bags to some convenient spot on the work area, where the Moharrirs were assembled. To each of them he gave his ten corresponding bags of money, taking a receipt for the same in Form D VI. The Moharrirs, with the aid of the muster clerks, then proceeded to pay their gangs, the cashier visiting each in turn, and checking the disbursements that had just been made. On the work on which the Famine Naib-Tahsildar was present, he also inspected payments, and satisfied himself by personal observation and enquiry that payments were regularly made, and on the other works in the "charge" the Famine Naib-Tahsildar's clerk inspected the payments.

48. Tasks were stiffened or relaxed by the Executive Engineers, who reported to the Commissioner any important alterations made.

The reduction of the tasks in the Kekri Circle in March-May 1900, for special reasons, was the chief instance of the operation of this rule.

The system under which the wages were regulated has been mentioned under answer 46. The Commissioner had power to issue orders independently subject to the control of the Chief Commissioner. On the Public Works side the Local Administration received and dealt with the Departmental return, the Superintending Engineer being also Secretary to the Honourable the Chief Commissioner.

The Commissioner was never overruled. The wages were questioned in May 1900, the Chief Commissioner suggesting that they were excessive. The Commissioner was unwilling to lower them.

49. In May 1900 we started small Civil Agency Works in Merwara, to relieve the pressure on the Departmental Works, and to keep the people to some extent in their villages as the rains drew near. In one Tahsil, Beawar, the number of workers transferred to small works was 2,000, in the other Tahsil, Todgarh, the largest number reached was 907. The transfer was successful, and relieved especially some of the Beawar works on which cholera had broken out.

SMALL VILLAGE WORKS.

50. The above-mentioned small Civil Works were the only petty village works which we carried

out. In Ajmer and Nasirabad we carried out small Civil Agency Works to find employment for labourers in those towns who might need it. The numbers employed were small. These petty works were open from April to September 1900, in the case of Ajmer. In Nasirabad they were opened in June 1900, and closed in November.

51. *In Merwara.*—Improvement to the beds of tanks, removal of silt and the deepening of village wells.

In Ajmer.—The levelling of the play-ground of the Government College.

In Nasirabad.—Excavation of tanks, construction of roads and petty bazar improvements.

52. The works were carried out under the supervision of Civil Agency, by direct management. In Merwara a Public Works subordinate was lent to the Civil Department for supervising these works.

The Civil Works Inspector laid out the work, and the mistris measured it up. The Lambardar of the village received an advance for the work and disbursed it, keeping Muster Rolls.

In Ajmer and Nasirabad the works were immediately supervised by the Principal of the Government College and the Cantonment Magistrate.

53. The works carried out in their estates by estate-holders by loans granted by Government were not under regular supervision. The estate-holder received his loan and applied it to the works specified in his application for the loan. He paid those whom he employed on the work such wages as he thought fit. The Court of Wards Estates which received loans expended them under the supervision of the Assistant Commissioner of Ajmer, who is the Manager of the Court of Wards.

Financially all the advances made under the Land Improvement Loans Act will be recovered from the estate-holders concerned.

54. In Ajmer and Nasirabad daily tasks were set out. In Merwara the work was piece-work. In Ajmer and Nasirabad only residents of the local area were admitted. No dependants were relieved by this agency. The works were not restricted to particular classes otherwise than as stated above. The wages paid were as follows :—

	Annas.	
Men	1½	
Women	1½	
Working children	{ ¾	(Merwara).
	{ 1	(Ajmer).

55. The selection applied on these very petty works in Ajmer and Nasirabad has been mentioned above.

The works were so small that an opinion as to the success of selection can hardly be formed. These little works were successful and useful.

56. The Beawar Tahsil Civil Agency Works drew labour from the Departmental Works to an

appreciable extent (2,000). In Todgarh these works were less popular.

57. I proposed to give Civil Agency Village Relief Works the first place in our next famine programme. The works are cheap, useful and popular, and our Merwara experiment proved successful. The works can be rapidly started and easily supervised. Should acute famine again be threatening, a preliminary Civil Works programme would give the department breathing time. I think these works are suitable for the early and final stages of a famine.

SPECIAL RELIEF.

58. We have no aboriginal tribes that required special relief. We have 7,000 Bhils, but they are part of the cultivating and village menial population. The Mers and connected tribes are aboriginal, but reclaimed to cultivation long since.

59. We had no forest or fodder works. Several of the Merwara famine roads serve the forest area.

60. No.

61. Not in Merwara. In a few of the Khalsa villages in Ajmer and at Kekri, a trifling sum (Rs 48) was spent on the relief of weavers. This was all that it was found necessary to do in this direction.

62. The artisan class did not go on relief, though many (carpenters, masons and the like) found employment on them as "specials."

63. *Nil.*

64. The Government forests were opened to extended and free grazing in the rains of 1898 in Merwara, and in those of 1899 in both districts. The stored grass in Merwara was issued on credit to cultivators in 1898-99 for their cattle. The cattle of both districts which cultivators considered worth keeping, and which they thought that they would not require, were driven to foreign pastures in the autumn of both 1898 and 1899. This is usual. The cattle that remained were either supported by their owners or, more particularly in the case of Merwara, left to shift for themselves. There was no grass from the end of the rains of 1899, and fodder was at famine prices. There was very heavy mortality among the cattle left in both districts, especially in Merwara: but many of the cattle which died or were slaughtered for their hides were animals of little value.

Various plans were suggested for preserving the cattle that remained, but they were not popular, and were practically unworkable, save at great expense. No measures were therefore taken to preserve cattle, save the grant of large advances both from Government and charitable funds, as the rains of 1900 approached, to enable cultivators to replace the cattle that they had lost. The policy followed was successful: cattle from outside districts came into the market at not unreasonable prices, and the cattle that were driven away have returned to a considerable extent. In Merwara,

however, the effects of the famine on the supply of cattle will be felt for some time longer.

65. We imported a small quantity of dried grass experimentally from the Hardwar Circle of the North-West Provinces. The experiment was hardly successful.

GRATUITOUS RELIEF.

66. (a) Adult dependants were relieved by admission to the works. Children under ten years of age and children incapable of work were relieved in kitchens. Adult dependants were relieved in cash: kitchen inmates by cooked food.

(b) Dependants were not admitted to Civil Agency Works.

67. In Merwara the kitchen relief was the form of gratuitous relief that supported the largest numbers, although the numbers supported as dependants and on the village relief lists were very considerable also.

In Merwara the kitchens practically supported the whole of the children of non-working age belonging to the agricultural population: besides them numerous foreign wanderers were fed at the kitchens.

We established the kitchens to relieve the works of the children, in which they were a great inconvenience, and because they were cheap and easily supervised. The people after showing some reluctance at first took to them. We clothed as well as fed all our kitchens children: their parents were on works.

Ajmer was differently situated. The famine was less acute. The Assistant Commissioner had always very moderate village relief lists. There was a heavy poor-house attendance, caused by the continued stream of foreign immigrants. We started civil kitchens in Ajmer in November and December 1900 to support the children in the Khalsa area, but found it more convenient to make them over to the Public Works, and attach a kitchen to each work. Later, from April onwards, we had to considerably increase the civil kitchens in the Istimrari area, where the estate-holders' resources were ended. The dependants on the works remained, however, the most numerous class gratuitously relieved. The Ajmer works were able to maintain their dependants, while in Merwara it was a constant object to free the works by transfers to gratuitous relief.

68. The distribution of village relief did not go beyond the classes mentioned in paragraph 141 of the Famine Commission's Report of 1880 (as codified, and extended so as to cover *parda-nishin* women). The recipients were selected by the Civil Famine Staff, who had a close local knowledge, and those on the lists were under constant inspection. There was no further test. The *Patwaris* made the lists originally, the *Girdawars* checked and approved them, and issued the tickets, and thereafter the lists were maintained under continued inspection.

69. In Ajmer we opened 4 poor-houses and in Beawar 2. The Ajmer poor-houses were opened on the following dates :—

Ajmer	.	.	.	October 4, 1899.
Kekri	.	.	.	November 4, 1899.
Deoli	.	.	.	May 5, 1900.
Daranthu	.	.	.	June 1, 1900.

The Merwara poor-houses were opened on the following dates :—

Beawar	.	.	.	February 1, 1900.
Todgarh	.	.	.	September 16, 1900.

The Ajmer poor-house admissions included a recorded percentage of 43 Native State wanderers. The Ajmer city was a constant attraction to these wanderers, and required constant and extensive protection. The maximum attendance at this poor-house was 3,397 in August 1900. The Kekri poor-house maximum was 1,130, and that at Deoli 1,017. The Beawar maximum attendance was 899. The other poor-houses were small.

70. Yes and no.

71. Yes. Those able to work were sent to works. The Native State inmates were frequently removed by State officials ostensibly, but as frequently returned often in a starving condition.

72. *Merwara*.—Twenty-two kitchens were opened on the Civil side, from August 1889. Three of these only were opened after the rains of 1900 had broken. Six Departmental kitchens were started, all in January 1900, but only 2 were maintained for any time.

AJMER.—17 Civil Kitchens were opened before the rains of 1900, and 20 Works Kitchens.

Total—Before rains, 1900	.	.	.	62
" After rains	"	.	.	3
				<hr/> 65 <hr/>

The Departmental Kitchens served the children of the charge: the Civil Kitchens, a circle with a radius of five miles approximately.

73. The kitchen rations were as follows :—

					Chittaks.
Adults	.	.	.	.	9
Children 10 to 14	.	.	.	.	6
" 7 „ 10	.	.	.	.	4½
" under 7	.	.	.	.	3

In April 1900 it was necessary to do away with the smallest ration.

In Merwara in the Civil Kitchens we nominally applied the Ajmer-Merwara Code scale, and did not change it, as it was found satisfactory and worked economically. The Merwara cost per head, although prices were higher, was considerably lower than that in Ajmer.

					Chittaks.
Children 10 to 14	.	.	.	.	8
" 7 „ 10	.	.	.	.	6
" 2 „ 7	.	.	.	.	4

These rations were not in practice consumed: the consumption was considerably less, and the children were allowed to eat as much as they wished. When we took in adults, as we frequently had to throughout the famine, and particularly during the Mewari invasion suffering from acute hunger, we let them eat their fill. We gave first one and later two meals a day, at 10 A.M. and 4 P.M. People were compelled to eat their meal on the premises, and were not allowed to take away any food whatever.

74. In Ajmer Civil Kitchens were not opened close to Departmental Kitchens. In Merwara we had many Civil and few Departmental Kitchens, and the former served the relief works as well as their own local area. There was no definite limit of distance.

75. The Patwaris' and the Naib-Tahsildars' certificates were the basis of admission to the kitchens. The Kitchen Superintendents on these certificates issued their stamped tin tickets, which bore the number of the kitchen as well as of the ticket. Adult wanderers were admitted at the Superintendent's discretion in Merwara and given one meal. This was an absolutely necessary precaution, and prevented many starvation deaths, among foreign immigrants. In Ajmer the rest-houses took over this class of case.

76. The poor-house ration was the same as that in kitchens. From November to March *makki* was the grain that formed the basis of the ration: from March *nung dal* and wheat replaced the *makki*. Cases of sickness and weakness had special diet. From June 1900 we gave "chapatis" and *dal* twice a week instead of the ordinary *dalia*, or porridge: the inmates clamoured for their "*roti*," and appreciated the *chapatis*, which contained the amount of flour derivable from their prescribed ration. The Medical Officer's opinion as to poor-house and kitchen diet was always acted on.

77. The Patwaris drew up the lists of the village relief recipients. The Girdawars checked the lists, and they were then acted on. The lists were revised every ten days by Famine Circle Officers, and under constant check by the Civil Inspecting Staff, including Famine Officers.

78. Payments were made in cash weekly in the villages in which the recipients lived. In Ajmer these payments were made by Circle Officers through the *Lambardars*, and in Ajmer through the *Patwaris*.

79. Payments were only made to persons mentioned in the Codes.

80. Brahmins were employed as cooks. The cultivating classes on works were at first averse to allowing their children to receive cooked food. The reluctance was not strong, and soon disappeared. They preferred to have their children nominally working, holding that for nominal work there was no shame in receiving a wage.

81. In Merwara the village school teachers served as Kitchen Superintendents: when these were not available, salaried men were employed. In Ajmer we had salaried Superintendents.

82. The Scottish and American Missions at Ajmer established cheap grain shops, and American maize principally was sold at them. We have no definite information about this.

83. The cheap grain shops referred to did not discourage the importation of grain or affect prices. The cheap grain was but a drop in the ocean of the grain imported and consumed.

SUSPENSIONS AND REMISSION OF LAND REVENUE.

84. The total amount suspended and remitted up to date since January 1899, under the various heads (Land Revenue, Water Revenue and Cesses) is Rs. 4,81,423.

This is distributed as follows :—

	R
Fixed Land Revenue, Fixed Water Revenue and variable Land Revenue	4,07,356
Variable Water Revenue	23,580
Cesses	45,487

The amount so far definitely remitted is nominal (Rs 390 only).

85. Our suspensions and remissions are governed by rules sanctioned by the Government of India in 1895, which admit suspensions and ultimate remissions in the case of general and special physical calamities. Usufructuary mortgages and proprietors who do not give a corresponding remission to tenants who pay a fixed rent are not given the benefit of suspension.

Our Khalsa village communities are "Bhychara" cultivating bodies, and the responsibility to Government for the revenue is village rather than individual responsibility. Each "malguzar," however, is liable for the revenue of the whole village. Individual capacity to pay comes under observation, and is taken into account when the suspension recommendations are framed and sanctioned. Proposals for suspension are made at the instance of the Revenue Department on the reports received from the village or tract. The Patwari carries out the Girdawari, and his report is checked by the Girdawar, Naib-Tahsildar or Tahsildar and Revenue Extra Assistant Commissioner, and the latter's recommendation temporarily passed by the Assistant Commissioner and Collector, who has authority to temporarily allow suspensions, which the Commissioner formally sanctions, reporting them to the Chief Commissioner.

86. Suspension proposals are made before the collection of the instalment in respect of which they are recommended has commenced.

87. We have but two small villages, for the revenue of which a Zamindar is responsible to Govern-

ment. The zamindars collect their rents in kind. The estate-holders pay a "jama" to Government, which represents but a fractional portion of the revenue-paying power of the estate. Suspensions of this are granted on the condition of the harvest of the estate, and to some extent of the circumstances of the estate-holder. Thus if he received large Takavi loans and spent considerable sums in relieving his tenants, the estate suffering from general famine, he would receive a suspension of his "jama." These suspensions were freely granted in 1899-1900.

88. No. As in the famine of 1891-92, suspensions of Government revenue and cesses have been very freely granted. I have seen no evidence of the abuse of this relief.

GENERAL.

89. In Ajmer the maximum numbers on relief (at the end of June and beginning of July 1900) were under 15 per cent. if it be remembered that half our poor-house population then belonged to Native States, while the numbers on our relief works included a recorded Native State percentage of nine.

In Merwara the percentage of population on relief was at one time as high as 73. Briefly the reasons for this phenomenal figure are :—

The district, which save for Beawar town is, entirely agricultural, and which has, in spite of the very large sums expended on it by Government always been a poor one, suffered from a year of partial followed by a year of acute and general famine. The resources of the agricultural population and those dependent on them were, with exceptions, quite exhausted. The Mers, a tribe whose reclamation from their predatory habits dates from the administration of Colonels Hall and Dixon (1823—1857), are still very backward and thriftless, and the two consecutive bad seasons brought them to quite the end of their resources.

The highest Merwara figures, however, do not represent Merwara distress only. The Merwara works undoubtedly relieved a considerable number of the villagers of the adjacent Mewar country that forms our south-east border. I have said in my famine report that I think a percentage of fifteen is not an excessive estimate of the number of foreigners relieved on the Merwara works in the later stage of the famine. This includes people also from the Ajmer district: the Masuda and Kharwa Mertenantry and labourers largely used the Merwara works. We did, it is true, draft 2,000 Merwara labourers on to Ajmer works in May 1900, but the homing instinct is very strong, and they nearly all quietly returned to Merwara works.

90. I think that the relief given was what the circumstances demanded. We found our wage scale inadequate in March 1900 on the Kekri Circle works. In Ajmer in the test work stage of 1899 the

relief was too liberal : this has been already referred to. In Merwara certain results that have subsequently come to light lead me to think that there was a good deal of laxity on the Public Works Department side in enforcing tasks towards the close of the famine. The Public Works Department programmes outlasted the calculations on which they were based, and several works that should have been finished, if the earlier calculations were correct, were left incomplete.

91. In the Todgarh Tahsil, the most famine-stricken part of Merwara, the village mahajans worked on the relief works. Those on works included all the classes described. There is no non-proprietary cultivating class outside the Istimrari estates where the tenants are tenants-at-will, unless they prove the contrary. The extent to which these classes came on the works is not recorded.

(The Ajmer Bhumias were largely employed on the works as treasure guards. Among those who served as Naib-Tahsildars were one of the Jagirdars and one of the Rajput estate-holders.)

92. In the famine of 1891-92 there was considerable emigration from Ajmer-Merwara, and but little immigration. In the recent famine this was not so : there was much immigration and comparatively little emigration. The wages of 1891-92 were high, and there was little gratuitous relief. The famine was by no means of the same extent and intensity, and hence comparison of the readiness of the people generally to come on to relief is not easy. The people were undoubtedly ready to come on to relief in the recent famine, but they were subjected to far greater pressure in every way.

93. Yes, a considerable contraction of private credit was noticed. Complaints against the *baniyas* in Ajmere were bitter, and there was a marked desire to obtain Government advances. We know from the Ajmer test works of September 1899 that people came on to relief before their private resources were exhausted, because they left the works when the conditions became stricter, and only returned gradually as the famine went on.

94. Yes, I consider the conditions of the North-Western Provinces Code of September 1899, as applied here, sufficient.

95. The ticket system in Merwara is quite practicable as long as the pressure is not excessive. The system is supervised without difficulty. If we are again to rely on Merwara works for our famine programme, the ticket system will be indispensable, as our works will be very limited. If my suggestion, however, be accepted, we shall have a joint programme with Udaipur and Jodhpur, and then the ticket system will be unworkable.

96. Births and deaths in Government villages are registered by the Patwari, and the figures are communicated by the District Magistrate to the Civil Surgeon, who compiles them.

In the Istimrari or estate-holders' area the estateholder's managers send the figures to the Chief

Constable of the Police Station, and thence they are transmitted to the District Magistrates.

97. We commenced in January 1898 (I attach a printed tabular statement) with a death-rate of 28·08 per mille per annum. In January 1899, the rate was 30·12. By November 1899, when the general famine was well established and immigration had set in, the rate had risen to 38·64. In December, largely in consequence of immigration and starving foreign wanderers, our figure was 61·20. In 1900, the figure reached 187·08 in May and 171·48 in October 1900.

There are special causes for some of the enormous rates exhibited. In Merwara, in December 1899 and January 1900, we had the invasion of famine-stricken Mewaris, among whom we recorded 700 deaths in those months. These were beyond help when they dragged themselves into our borders. Throughout the cold weather we had small-pox, though not in epidemic form. In May 1900 we had a very heavy epidemic of cholera in both urban and rural areas.

In the autumn of 1900 the fever epidemic supervened, and has only just subsided. The mortality caused by it has exceeded that of the worst months of the famine. The starvation deaths noted in the attached statement are, I say with confidence, the deaths of Native State wanderers round about Deoli, who came to us for relief there and died. We had numerous deaths in the poor-houses (with very few exceptions, those of Native State wanderers) due to unwholesome and inadequate nourishment and the disease that supervened. The cholera caused many deaths, the number of which might have been less had the year been normal. However, in Ajmer city itself it carried off some 20 Europeans. As I have said elsewhere, the grain in the rural markets was generally of inferior quality during the famine, while a good deal of edible bark was used by workers to amplify their rations. But among our own people I should not say that the terrible mortality rates were definitely attributable to unsuitable or unwholesome food, although I should say that unwholesome and unsuitable food had, to a degree that cannot be accurately estimated, conduced to very high death-rates, and had much weakened the power of the population generally to resist disease. The Civil Surgeon attributes much of the mortality among persons not on relief and particularly in large towns and villages to the consumption of adulterated *ghī*, weevil-eaten grain, and bad drinking water.

Death-rate statement for the Districts of Ajmer-Merwara.

MONTH.	AJMER. POPULATION 422,350.				MERWARA. POPULATION 119,099.				TOTAL AJMER-MERWARA. POPULATION 541,449.			
	Total number of deaths.	Death-rate for the month.	Death-rate per annum.	Starvation deaths.	Total number of deaths.	Death-rate for the month.	Death-rate per annum.	Starvation deaths.	Total number of deaths.	Death-rate for the month.	Death-rate per annum.	Starvation deaths.
1	2	3	4	5	6	7	8	9	10	11	12	13
January 1898 . . .	1,035	2.45	29.40	...	233	1.94	23.28	...	1,268	2.34	28.08	...
February " . . .	905	2.14	25.68	..	278	2.32	27.84	...	1,183	2.18	26.16	...
March " . . .	894	2.12	25.44	...	288	2.40	28.80	...	1,182	2.18	26.16	...
April " . . .	756	1.79	21.48	...	247	2.06	24.72	...	1,003	1.85	22.20	...
May " . . .	745	1.76	21.12	...	213	1.78	21.36	...	958	1.77	21.24	...
June " . . .	713	1.69	20.28	...	210	1.75	21.00	...	923	1.70	20.40	...
July " . . .	553	1.81	15.72	...	176	1.47	17.64	...	729	1.84	16.08	...
August " . . .	783	1.85	22.20	...	224	1.87	22.44	..	1,007	1.86	22.32	...
September " . . .	679	1.60	19.20	...	206	1.72	20.64	...	885	1.63	19.56	...
October " . . .	596	1.41	16.92	...	173	1.44	17.28	...	769	1.42	17.04	...
November " . . .	757	1.79	21.48	...	171	1.43	17.16	...	928	1.71	20.52	...
December " . . .	905	2.14	25.68	...	265	2.21	26.52	...	1,170	2.16	25.92	...
January 1899 . . .	1,023	2.42	29.04	...	339	2.83	33.96	...	1,362	2.51	30.12	...
February " . . .	1,147	2.72	32.64	...	323	2.61	33.32	...	1,470	2.71	32.52	...
March " . . .	1,468	3.48	41.76	...	384	3.20	38.40	...	1,852	3.41	40.92	...
April " . . .	1,151	2.72	32.64	...	360	3.00	36.00	...	1,511	2.79	33.48	...
May " . . .	1,109	2.63	31.56	...	352	2.93	35.16	...	1,461	2.69	32.28	...
June " . . .	691	1.64	19.68	...	251	2.05	25.08	...	942	1.74	20.88	...
July " . . .	739	1.75	21.00	...	289	2.41	28.92	...	1,028	1.90	22.80	...
August " . . .	1,201	2.84	34.08	...	333	2.94	35.28	...	1,554	2.86	34.32	...
September " . . .	778	1.84	21.98	1	231	2.34	28.08	...	1,009	1.95	23.40	1
October " . . .	853	2.02	24.24	5	410	3.42	41.04	...	1,262	2.33	27.98	5
November " . . .	1,158	2.74	28.88	...	587	4.89	58.68	...	1,745	3.22	38.64	...
December " . . .	1,695	4.01	48.12	1	1,072	8.93	107.16	...	2,767	5.10	61.20	1
January 1900 . . .	2,699	6.39	76.68	4	1,178	9.82	117.84	...	3,877	7.15	85.80	4
February " . . .	2,241	5.31	63.72	4	1,045	8.71	104.62	...	3,286	6.06	72.72	4
March " . . .	2,701	6.39	76.68	12	1,368	11.40	136.80	...	4,069	7.50	90.00	12
April " . . .	3,323	7.87	94.44	22	1,906	15.88	190.56	...	5,229	9.64	115.68	22
May " . . .	4,488	10.63	127.56	8	2,341	19.51	234.12	...	6,829	12.59	187.08	8
June " . . .	3,484	8.25	99.00	...	1,617	13.64	163.68	...	5,121	9.44	113.28	...
July " . . .	2,806	6.64	79.68	...	1,214	10.12	121.44	...	4,020	7.41	88.92	...
August " . . .	3,588	8.50	102.00	...	886	7.38	88.56	...	4,474	8.25	99.00	...
September " . . .	4,560	10.80	129.60	...	1,006	8.38	100.56	...	5,566	10.26	123.12	...
October " . . .	6,062	14.35	172.20	...	1,680	14.03	168.96	...	7,751	14.29	171.48	...

98. I attribute our increased mortality partly to impure but not to insufficient water-supply.

The wells on works were ordered to be disinfected weekly. These orders were not always properly carried out, but, speaking generally, they were carried out, and the wells were otherwise protected. In Merwara we disinfected with permanganate of potash: in Ajmer with lime and alum. The wells were deepened where this was necessary, especially in Merwara. For much of the period of general famine the only wells that held water were those supplied by springs. The water was at a very low level indeed, and there was little danger of impurities reaching it, while, once brought up, it was carefully protected.

The above remarks refer to the water-supply on works, and not to the water-supply in villages. The cholera outbreak of May 1900 in Ajmer is attributed by the Medical Department to impure water which non-resident workers drank in their villages, and having thus contracted the disease brought it on to the works.

In Ajmer city, where we had a very good though limited water-supply from the Budha-Pushkar Lake, the epidemic also found its way, but from the variety of the classes which it affected it would seem that there must have been some general cause for the outbreak over and above the quality of the water-supply. The wanderers no doubt brought the disease into Ajmer city.

The water-supply (wells) never entirely failed, although at one time a water famine seemed not unlikely. Wells were deepened.

99. (a) *Works*.—A sanitary area was marked out by flags and protected by chaukidars paid as specials. The wells were placed in charge of chaukidars when disinfected, and special men appointed to draw water and supply the carriers' gang, who took the water to "*pias*" fixed on the works. A Brahmin was posted at each *piao* to supply the workers. Sweepers were engaged to keep the camp kitchen and hospitals clean, and at each camp there were four bearers who had to carry any sick persons to the hospital, or dead persons to the burial ground, where graves were dug by way of precaution. As fuel was expensive, the burning of dead bodies was seldom carried out. Our arrangements were very severely strained on the Kekri Circle works in May 1900, by the severe cholera epidemic which attacked many of the staff as well as the workers.

(b) *Poor-houses*.—The sites were carefully selected and the staff included sweepers, water-carriers, and guards. The latrines for regular use were without the enclosures. The more important poor-houses—Ajmer, Kekri and Beawar—had each its hospital and Assistant in charge. The Deoli poor-house was inspected daily by the Hospital Assistant attached to the Regiment. The poor-houses were well supplied with disinfectants. Infectious cases, chiefly small-pox, were promptly isolated. Burials

were promptly carried out. In the Ajmer poor-house the water-supply was drawn from the Municipal pipes. The water here and elsewhere was collected in cisterns and thence issued through "*pias*." The water was boiled at Kekri and Deoli, but in this there was a good deal of slackness. The grain purchased was of decent quality, better and higher priced than that generally sold on works.

(c) Each kitchen had its water-carrier and sweeper. The kitchen enclosures were swept after each meal, and the kitchens were only occupied at meal times; in a few rare special cases orphans being allowed to sleep there. The kitchens did not require special sanitary measures. The Superintendents were responsible that the grain used was sound.

I think that we may claim that our sanitary arrangements were fairly sufficient. They were under the special supervision of the Famine Medical Officer. The disinfection of the wells was not always carried out as regularly as it should have been, and when the cholera outbreak of May 1900 occurred, the supply of cholera medicines in stock in the camp hospitals was found to be disappointingly short.

100. Yes. The sale of inferior grain was frequently noticed, and the sale of unwholesome grain in several cases severely punished. There was, as I have said before, no good grain in the poor man's market when famine was established.

101. Yes, there was a good deal of the mixture of edible barks with the grain eaten by the workers: but my own observation led me to think that a good deal of bark was kept for show to inspecting officers.

No appreciable effect on the health of the consumers of these products was noticed. The swelling of the extremities and cases of partial paralysis treated in the hospitals were considered due rather to anæmia and debility than to any special cause connected with these products.

102. *Immigration*.—We had no definite record of the number of foreigners who entered our limits. Throughout the famine they were with us. Had it not been for immigration the famine administration would have been comparatively easy. First, as to passers through the district in more or less well-to-do circumstances. With this class, who belong to Northern Rajputana, emigration from their own countries with their carts, families, and cattle, emigration is regular whenever the rains are short. They leave their country in September and return in the following May or June. These passed through Ajmer-Merwara in an enormous volume, beyond enumeration, in the autumn of 1899. As many as 20,000 were counted on one of the main roads in one day. And, owing to the scarcity in Central India and the Central Provinces as well as Central and Southern Rajputana, numbers of these came back in poorer circumstances, drifting up our roads through the forwarding depôts until they reached Ajmer or Beawar, where the Durbars concerned (Jodhpur and Bikanir), established camps, whence sent to their own country. Many of those sent back, however, by road broke back and were

found begging in Ajmer city, thence sent to the Government poor-house and drafted again to the Statcamp. The police on the main roads picked up upwards of one hundred children abandoned by these or other wanderers.

The immigration of those who sought relief which they could not find in their own States was apart from this annual immigration constant and extensive. Our poor-houses were filled by these wanderers, and large numbers found relief on our works. In Merwara the number of immigrants in January 1900 was as high as 25,000. I have noticed elsewhere the steps taken to relieve these people, their lamentable condition, and the mortality among them. We clothed many of them from funds provided to clothe our own people, who needed all that we could give them, but even this the Durbar did not reimburse. Jaipur, Kishangarh, and Mewar all contributed a substantial quota to our Ajmer poor-houses, and we found all these States equally dilatory and inefficient in removing their people and caring for them after they had been removed. The poor-house at Dcoli was opened solely to protect the neighbourhood from famine-stricken and starving Native State wanderers, some of whose deaths from absolute starvation we have recorded, while many died while under our relief. The neighbourhood was thus described by the Cantonment Magistrate:—

“It was found impossible to exclude the many hundreds of starving people incapable of work who dwelt in the surrounding villages in Native States who should, by right, have been provided for by their own Durbars.” Bundi, Mewar and Jaipur are the States concerned. Kishangarh made a full use of our Kekri poor-house and of our works when they lay in Kishangarh limits and near them. I am not aware of a single instance in which the relief that the Government of India so largely extended to foreigners through our agency has been even acknowledged. Certainly no acknowledgments have ever reached me.

While on this head I think that I may add that, in one instance only, where the report was at once found to be inaccurate and baseless, did any complaint reach me regarding distressed Ajmer-Merwara people who were seeking relief outside the district.

In Ajmer during the test work period from September to October 1899, the Ajmer works were crowded with immigrants from Merwar, and also by numbers of the Kishangarh people. For the former a special work near Ajmer (the Budha-Pushkar road work) had to be started, and the latter were employed on the Agra road section which passes through Kishangarh limits. In the later stages of the famine many Kishangarh and some Jaipur workers were employed on the works in Ajmer, and Mewar labour found its way to the works in the south of the district.

I should say on a very rough estimate that about one-sixth of our total number relieved was foreign. The lamentable condition in which most

of the foreigners came to added enormously to our cares and difficulties.

103. Our records of the mortality among the immigrants from Native States are imperfect. In Answer 114 I have made some remarks on the bearing of immigration on our recorded death-rates. Many of the immigrants whose deaths have added to our mortality rates were starving when they came to us, and many were greatly weakened by exposure and privation. Of those who invaded Merwara from Mewar at the end of 1899, 40 per cent. are computed to have been suffering from dysentery and diarrhoea, and many were starving within my own observation, and died as soon as food was given to them.

In our poor-houses, nearly one-half of which were recorded Native State inmates, we had 3,120 deaths up to August 1900. In Merwara, in the Mewari invasion of December and January 1900, we had 700 deaths recorded as those of famine-stricken wanderers from Mewar, but many more died all over the district, and these deaths are merged in our ordinary returns. The State rest camp and forwarding depôt mortality figures are merged in our ordinary returns. The Marwari rest camp at Ajmer had 96 deaths in the cholera epidemic of May 1900, and a total mortality of 567. There was heavy mortality among the Native State famine orphans, which Mission and other bodies collected in large numbers in Ajmer-Merwara, but separate figures are not available. I have estimated the true foreign attendance on the works at 15 per cent. in Merwara. The highest recorded percentage in Ajmer was nine, but the figures at times were undoubtedly higher.

I can only make a very rough estimate of the percentage of immigrant mortality on our total mortality. I would place the figures at about 20 per cent., but this and other estimates on the same subject are very conjectural.

Over and above the deaths that occurred among the immigrants it may be remembered that they greatly assisted the spread of disease among the local population.

104. Native State orphans were made over to their Durbars. Other orphans were made over to friends when these could be found, or cast people where these would take them. Other orphans have been made over to recognised Native and Mission orphanages on condition that they will not be taken out of Ajmer-Merwara, and will be restored to relatives if claimed.

105. I think that the provision of pure water in towns and villages should be included under Object I of the objects on which the Charitable Relief Fund may be expended, and I would add also the purchase and maintenance of cattle that would otherwise die of starvation.

I have no suggestion as to the management of the Fund.

106. (a) The Assistant Commissioners were informed each week by the Station Master of each

station in the district of the quantity of grain imported and exported by rail. We had no river or road imports. The statistics were reliable. Much of our imported grain was re-exported to Native States. The assumed consumption of the people has not been computed. I think it a reasonable conjecture that from September 1899 to August 1900 nine-tenths of the grain consumed in Merwara was imported, and in Ajmer one-half. A table showing imports and exports is attached.

Imports and Exports of grain and Export of Hides by Rail.

Month.	AJMER.			MERWARA.			TOTAL.		
	GRAIN.		Hides. Export.	GRAIN.		Hides. Export.	GRAIN.		Hides. Export.
	Import.	Export.		Import	Export.		Import.	Export.	
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
September 1899	3,55,537	9,282	Figures not available.	1,65,175	36,260	2,125	3,21,012	45,542	2,125
October "	2,29,452	16,787	Ditto	1,80,672	41,582	3,433	4,10,124	61,669	3,433
November "	1,40,920	6,753	Ditto	1,01,732	43,420	4,230	2,42,652	50,173	4,230
December "	2,11,315	30,644	729	1,72,269	51,353	6,231	3,83,584	81,997	6,960
January 1900	1,15,966	9,014	995	1,05,903	48,304	3,596	2,21,874	58,228	4,591
February "	1,91,455	22,029	7,043	1,66,626	65,094	5,681	3,58,082	87,123	12,724
March "	1,92,906	15,317	9,518	94,617	54,882	18,428	2,87,523	70,199	22,946
April "	66,031	17,003	2,265	1,19,355	35,850	1,637	1,86,286	52,853	3,902
May "	1,33,751	17,157	1,172	1,63,335	22,259	483	3,03,086	39,416	1,655
June "	1,02,303	15,651	1,627	1,24,810	37,999	731	2,27,113	53,653	2,405
July "	1,63,395	20,075	800	73,729	43,515	12,525	2,42,124	63,589	13,325
August "	28,989	7,098	605	19,886	20,217	211	48,875	27,815	816
TOTAL	17,33,220	1,87,723	21,754	14,99,115	5,07,065	51,861	32,32,335	6,94,788	79,115

107. The railway had a task of great magnitude in coping with the enormous grain traffic: however, they were equal to the occasion. No complaints on this head reached me: some fodder was imported by rail.

108. No complaints reached me. The large railway workshops in Ajmer worked as usual with relief works within a few miles of them, as did such cotton factories as were open. Most of these, however, were closed.

109. There has been an increase in the area under-food grains in recent years before the famine. The area under barley, jowar, and maize has increased, while that under cotton and opium has decreased. There was a considerable increase in the double-cropped area in 1897-98, but double cropping is generally carried on to the full extent that the season permits.

110. Wages are still paid both in cash and in grain. The tendency is to substitute a cash for a grain wage. Cash wages have risen with the rise in prices.

111. From the time when the North-Western Provinces Code of September 1899 was taken as

our guide, in so far as its provisions were applicable to our isolated district, we observed its provisions, departing from them in the following matters of importance. We retained our own classification. We gave no maximum wage. We gave, save to dependants, no minimum wage. We gave, in our nominal "Famine" period, which was introduced very late, only a rest day wage. We had no minimum wage, save on rest days in our "Famine" period, and save in the case of dependants already mentioned.

All these changes were in my experience justified.

112. We had five staff officers at different times employed on supervision, and also two European Police Inspectors. Two of the departmental subordinates had been non-commissioned British officers. One pensioned Native officer was employed as a famine Naib-Tashildar: in Merwara pensioned sepoys of the Merwara Battalion were somewhat freely employed as mates and muster writers. On one work at Deoli the staff was provided by the regiment. I prefer staff corps officers as supervising officers, although the work done by the Police Inspectors was quite satisfactory. I cannot suggest any other source of supply. Postal and telegraph officials were at one time suggested to us. I know little of the subordinate gazetted ranks of these departments.

113. Non-official agency administered the considerable charitable relief given in urban areas. In that, as far as the funds of the Provincial Charitable Relief Committee was concerned, it was very successful. Charitable relief was independently administered by mission bodies and other associations, some of which received a subvention for orphanages from the Provincial or the Local Committees. I do not think that there is any scope for its extension. The famine works carried out by the estate-holders on loans received from Government were works carried out by non-official agency. These works are mentioned elsewhere. They were carried out on as extensive a scale as was judicious.

114. *Merwara a.*—In Merwara the scarcity classification of March 1899 continued until November 1900, when labour was reclassified and the maximum wage done away with. The effect of this change on the works attendance was as follows:—

End of September 1899	45,000
„ „ October 1899	51,611
„ „ November 1899	61,107

The change had no effect on the number on the works, which continued to rise steadily. The rise observed was, however, in some measure due to immigration. In January 1900 a lower classification was introduced, and in February 1900 the reduction of wage was also effected.

The numbers at the end of—

December 1899 were	58,461
January 1900	60,244
February 1900	60,280
March 1900	65,351

These reductions thus had no effect on the numbers on works, which rose steadily. The giving of the Sunday wage in April 1900 had also no effect. The figures fell from 67,047 in the first week of April to 63,911 in the last week. The figures rose later on to as high as 68,442 in the first week in July, but this was due to the season. We practically did not alter our tasks, mode of calculating fines or distance tests. Our system of work, *i.e.*, payment by results, was always the same.

In Ajmer the first marked change was the change from test works to scarcity works in October 1899. This change caused an early decrease in the numbers of those on relief on works from 26,836 to 17,000, and the rise in relief numbers during the two months following was gradual.

At the end of January 1900 a reduction (calculated to represent 25 per cent. on the Code wage) was introduced. The number on relief works fell from 29,397 in the second week in January to 16,039 at the end of January, and kept fairly low till March. By the end of April 1900 a large rise had taken place, the numbers reaching 43,877. In April 1900 we gave the minimum wage on rest days, but this did not affect the numbers appreciably. The maximum number reached was 45,256, and that was in the last week in June. As regards the death-rate the effect, if any, of the reduced classification of November 1900, in Merwara, can hardly be traced, because it was in November that the Mewari invasion commenced, and the heavy rise in the death-rate was mainly due to this invasion. The reductions of January-February 1900 (death-rate 117.84 and 104.52) were followed by heavy rises in March, April and May. These again are attributable in no small measure to mortality among foreign immigrants and wanderers: in the last week of April a very serious cholera epidemic broke out in Beawar town, and spread to several works. This continued in May, and the phenomenal mortality of May 1900 is partly due to the heavy cholera epidemic in Beawar town. The giving of the rest-day wage in April 1900 had no very traceable bearing on the mortality, which is returned at a rate of 190.56 for April and 234.12 for May. After that it fell, the June figure being 163.64, the July figure 121.44, and the August figure 88.56. By August most of our foreign population had left us, and to that I consider the reduced figures chiefly due. In September and onwards till the end of the year the fever epidemic caused more mortality among our own people than any previously recorded.

In Ajmer in the same way the foreign element makes it difficult to trace a distinct connection between reduced wages, etc., and the death-rates. Thus in October 1899, when we did away the liberal test work conditions, the recorded death-rate was 24.24. Immigration had then set in. The rate, however, remained at 28.88 in November, but in December it rose to 48.12. In November and December there was a good deal of small-pox, and there was much foreign mortality. In January 1900 when

the wages as already described were reduced, the rate was 76·68. In February it was 63·72, and in March 76·68. In April it was at 94·44, and then the cholera epidemic began, and attacked urban and rural areas equally, Ajmer itself having a very large number of deaths.

In April 1900 we gave the minimum wage on Sundays. In May the death-rate rose to 127·56; in June it was at 99, and in July 79·68, by which time we had got rid of most of our foreigners. The fever epidemic of the late autumn brought the figure to as high as 172·20 in October.

All our percentages are calculated on the Census figures of 1891.

115. Within my observation family ties were not disorganised by residence on large works, nor were social restraints seriously weakened. I have been informed that there was a good deal of immorality among low caste women. I cannot suggest any method whereby the evils alluded to could be mitigated.

The children were fed in the kitchens, the lower castes sitting apart from the others. They rejoined their parents in the evening. The parents were at first averse to the kitchen relief. The bulk of our relief workers and dependants were either labourers of low caste or Mers, and the connected tribes whose caste rules are loose.

A. L. P. TUCKER,

Commissioner, Ajmer-Merwara.

AJMER;

The 28th January 1901.

MAJOR DUNLOP SMITH, C.I.E., LATE FAMINE
COMMISSIONER, RAJPUTANA.

The President.—A question of some practical importance has arisen in dealing with immigration.

You have listened to the evidence; it is to the effect that a vast wave of immigrants in a depressed condition came into British territory and remained upon our works, swelling the death roll and also increasing the expenditure of the British Government. And the question is how can that be dealt with in future. There is emigration from Native States in every year, and there is no desire to stop it in famine years, but there is a desire to impose upon Native States the responsibility which attaches to them. How can that be managed?

A.—To begin with I have been reading the report of Ajmer-Merwara and I don't agree with the calculation there as to the proportion that aliens bore to the total numbers on relief.

Q.—When did you come to deal with this famine?

A.—I was appointed Famine Commissioner on the 9th of October 1899.

Q.—Then you remained throughout the entire famine?

A.—Yes.

Q.—You speak as an authority on that matter. Why don't you think the figures were correct?

A.—From my own observation and the statistics furnished by the Commissioner during the course of the Famine. There was no doubt a great rush into Merwara in December 1899; it was computed by the Civil Officer that out of a total of 75,000 people on Merwara works in December from 20,000 to 25,000 were outsiders; but representations were made and the bulk of them were removed and works were provided. With the exception of that time I should say, as far as works went, taking the period during which I was in Rajputana, the percentage of immigrants never exceeded 5. I think there has been a great deal of confusion between foreigners and people from the *istamrari* villages who had come to the works.

Q.—Major Spilsbury insisted that there had been a very large percentage, much more than 5 per cent. of aliens, and so did Mr. Manners-Smith?

A.—I put forward this percentage with considerable diffidence.

Q.—It conflicts with the evidence?

A.—Yes, I am aware of that.

Q.—On what is your estimate based?

A.—It is based on the figures given in the fortnightly progress returns of the famine in Ajmer and Merwara which were submitted from time to time, and which I had the opportunity of seeing.

Q.—Did you inspect them with the view of ascertaining this particular point, *viz.*, the percentage of true aliens?

A.—It was my duty to criticise them.

Q.—Did this point specially occur to you?

A.—Yes.

Q.—These are the local officers' own figures?

A.—Yes.

Q.—Consequently they must be bound by these; any opinion which they express can only be based on these figures?

A.—Certainly. I may as well say that the local administration pointed this out to the district authorities; they said they hadn't enough staff to give very careful returns: therefore they were very much understated.

Q.—I see the numbers were very great until the introduction of the North-Western Provinces system. In the fortnight ending 30th December you had 113,000, and then in the fortnight ending 13th of January you had 45,000, in the fortnight ending 27th of January 18,000 it took about a month to get rid of the numbers, and then there was a return wave probably?

A.—Yes. Strong representations were made to His Highness the Maharana, and an Executive Engineer was sent. He organized the works and took the people away; some broke back, but they were taken back again. After a while the works were the best managed in Rajputana. After April there was no cause for complaint in that part of Merwara.

Q.—Did you go about in December, January and February visiting relief works in Ajmer-Merwara?

A.—I was able to give very little time to it. I inspected a few.

Q.—Did you notice this particular point on the works?

A.—No, not on the works.

Q.—When was it you had an opportunity of consulting these statistical returns?

A.—Not until April.

Q.—Before April it did not occur to you to examine the matter critically?

A.—No.

Q.—How did you do it?

A.—The Agent to the Governor-General sent me files to look at on which he wished to consult me, and the matter was forced on my attention.

Q.—Up to April did you share in the local belief that immigration was very great?

A.—No, not as to the Ajmer-Merwara works, except the one exception in December.

Q.—When the new year had commenced your inspections did not satisfy you that they were in great numbers?

A.—No, my chief inspections were carried out in Ajmer-Merwara in January.

Q.—You did not share the opinion of the local officers of the death-rate being largely due to immigrants?

A.—No, I did not. It was partly due to immigrants, persons from the *istamrāri* villages being the chief cause.

Q.—The administration of relief in Ajmer-Merwara would not be so satisfactory as if a considerable proportion of the mortality could be attributed to aliens?

A.—It is partly due to aliens, and must have been due to many *istamrāri* people being on the works.

Q.—Still the *istamrāri* people are British subjects, and the British Government takes responsibility. You cannot differentiate them from the people of the *khalsa*?

A.—They were so differentiated.

Q.—You say then that aliens contributed their *quota* of deaths, but that the effect on the total death-rate was small?

A.—The cholera mortality was very great: a considerable number left the works and carried it into the villages.

Q.—We have been told that before January the system of relief works was attractive, that the scale of wages was more than liberal, that there was a minimum wage, and that consequently numbers of people came from adjacent Native States on to British works. That is only interesting to the Commission, in so far as conveying the lesson that test-works should not have a minimum wage, and ought to be on a more strict plan than relief works. You want to ascertain if necessity exists and then the sooner you give relief the better: consequently the test should be strict. Do you agree?

A.—I quite agree.

Q.—Do you think that the plan followed in Ajmer-Merwara in regard to the minimum wage should be avoided?

A.—Yes, I would have a much stricter test.

Q.—When the system was changed and another introduced in January, did you think it answered all purposes?

A.—On the whole it did.

Q.—It was a system of payment by results with a minimum wage and provision for dependants and children on works?

A.—Yes.

Q.—Did you think that on the whole it gave adequate relief?

A.—Yes.

Q.—You don't see any necessity for altering that to the Code-task system with a minimum wage? It has been said by the late Commission that in periods of acute famine the system which should be followed is the Code-task system with a minimum wage. We have been instituting our inquiries in various provinces to see whether in the period of acute famine payment by results, with provision for dependants and children, is not sufficient to give all the relief that is necessary. What is your opinion, based upon the experience you have had?

A.—My experience gained during the late famine in Hissār in 1897 showed that payment by results was not sufficient. Here I certainly saw no failure of the system of providing adequate relief to the people. On the whole certainly I agree.

Q.—Did the people come in Hissār in reduced condition or was the famine taken in time?

A.—Relief was established before the people had run down.

Q.—And they still ran down on the payment by results system?

A.—Yes.

Q.—Had you got provision for dependants on the payment by results system in the Hissār famine and kitchens for children?

A.—No.

Q.—That makes all the difference. What were the points to which you referred as needing improvement in the system as administered here?

A.—I think the *Naib Tahsildār* should have been given more power.

Q.—That is the officer placed in charge of the work?

A.—He was not always in charge of the work. I thought he ought to have been.

Q.—Who were in charge of works that you inspected?

A.—The Public Works Overseer.

Q.—What stamp of man was he?

A.—A man on Rs. 100 a month.

Q.—Do you think on the whole he was as suitable a man as the *Naib Tahsildār*?

A.—Personally I don't think so, man for man, each being equally efficient in his own department.

Q.—Would you give the *Naib Tahsildār* general control over all the aspects of the work, except merely measuring?

A.—Yes and except professional details.

Q.—Do you consider the apportionment of the task a professional detail?

A.—The Public Works Department should fix it and let the *Naib Tahsildār* work it.

Q.—Whose business would it be to judge of the condition of the people whether they are able to do a particular task?

A.—It is the business of the Executive Engineer.

Q.—The Executive Engineer would fix it as subordinate to the Collector?

A.—Yes.

Q.—Would you make the Collector the centre of authority?

A.—Emphatically.

Q.—And the allotting of tasks and everything you would place under him?

A.—Yes.

Q.—And the Engineering authorities would be his assistants?

A.—Yes.

Q.—Then in regard to the allotting of tasks; if there was any doubt—if, for instance, the workers were on soft soil on a task of 100 cubic feet and they came to a hard stratum of soil in which they could not do 100 cubic feet, and it was a question of reducing the task to 80 cubic feet or less, and if the Public Works Overseer said "I have got this task of 100 feet and if the men do not do it I shall fine them:" should it not be the business of the *Naiib Tahsildar* to fix the task at 80 cubic feet or less?

A.—I quite agree.

Q.—The Collector's order would prevail; but there would be a reference to higher authority. Is there any other point except the one you have mentioned?

A.—I think there should be more control over the grain dealers on the works.

Q.—What control was exercised over them?

A.—They were not interfered with: they charged what they liked.

Q.—Did they not sell according to the *nirik*?

A.—No, they were selling, I found, at rates considerably higher than the *nirik*.

Q.—Were other dealers brought in to compete?

A.—I do not know. I was of opinion that these dealers should be brought under much closer control; they had a monopoly.

Q.—Were they not obliged to sell at the rates prevailing in the nearest bazár?

A.—No.

Q.—Did it happen that the people had to pay dearer than the rates at the nearest bazár?

A.—Yes, somewhat dearer.

Q.—You fixed your wages on the scale of prices prevailing in the big bazárs, and the grain equivalent was converted into money on that scale, and you paid wages to coolies at that rate: so that a coolie going to a *bania* upon the works and hoping to get 14 *chhataks* with the wages you paid him only got 12 or perhaps less?

A.—Yes.

Q.—That was defeating your own object?

A.—Yes. I must add that when that was brought to the notice of the Commissioner he said that when fixing the scale he took the fact into account that these men were charging higher.

Q.—He did not fix his wages on a wage scale of 10 seers, but of 8 seers?

A.—Yes.

Q.—And the result was that Government had to pay much more than it should have done?

A.—I think he gave a margin of 5 per cent.

Q.—I suppose that was allowed to get the grain dealers to come from a large bazár to works?

A.—Yes.

Q.—The *bania* would have to get something for his trouble. It was no worse than that, was it? If you have grain selling at 10 seers at Ajmer and the *bania* is told to go 10 miles, he won't go that distance without some remuneration for his trouble. You must be prepared to pay that addition or you must submit to the people paying it. That is a matter for adjustment, I suppose?

A.—Yes.

Q.—How would you meet a combination of that sort?

A.—In Hissár I telegraphed to other firms and asked what they would go to the work for. The *banias* at once came and offered 10 per cent. lower: that was in connection with the Ghaggar Canal.

Q.—Is there any other point besides those we have dealt with?

A.—Daily payments should be made from the very beginning.

Q.—Yes. Are there any other points?

A.—No; those are all the suggestions I have to make.

Q.—The figures before us seem to indicate that in Ajmer village relief was very inadequate: in no month did it exceed one person per village?

A.—I only found that there was failure to give relief to people who ordinarily get it at their houses.

Q.—The Sanitary Officers elsewhere said that short distribution of relief in the villages was the cause of the great mortality, and one is inclined to infer that the mortality in Ajmer must have been partly caused by the non-distribution of relief in villages?

A.—I am not prepared to give a decided opinion on that point. I never had an opportunity of inspecting the system of gratuitous relief in the villages.

Q.—It was much more extensive in Merwara than in Ajmer?

A.—Yes; Merwara was much more distressed.

Q.—On the whole do you think that there was excess or deficiency in the distribution of relief in Ajmer-Merwara, or do you think you hit the mean?

A.—I think there was excess of relief up to the end of 1899, and after that I think the mean was hit.

Q.—In Merwara the number in receipt of relief was 58 per cent. of the total population in November, 59 in December, 60 in January, 63 in February, 67 in March, 68 in April, 71 in June, 60 in July, 47 in August, 14 in September, that is out of all keeping with what we have seen in other parts of the country. You are yourself an experienced famine officer. Is that not out of all proportion? We have been told that this is explained by the enormous immigration, but you say that immigration was a very small factor?

A.—In 1891 famine relief was administered in Ajmer-Merwara on a very lavish scale, and the traditions had lingered, and people had got demoralized. Then this was the second year of severe famine, and the people had absolutely no resources left. All these facts contributed to the numbers.

Q.—In Ajmer there was much less, 5 per cent. in January, 6 in February, 6 in March, 8 in April, 12 in May, 15 in June, 8 in July, and 3 in August. These figures are quite in accordance with previous experience and what you would expect, but the other is enormous. The only explanation is that this was the second year of famine?

A.—Yes, and the country was absolutely denuded of all resources, both of crops and cattle.

Q.—Do you think that the people attributed their collapse to anything connected with the Government revenue?

A.—The people never did.

Q.—Or did they think that in previous years Government had taken too much out of them?

A.—No.

Q.—They lost a great number of their cattle?

A.—Yes; in Merwara a number of the cattle disappeared.

Q.—Had that anything to do with their collapse?

A.—A great deal.

Q.—Do they rely upon their cattle for their ordinary sustenance?

A.—The people in the adjoining part of Merwara and Sirohi do.

Q.—Some of the people when they have money bury it, some make ornaments, some invest in cattle. Do they look up their money in cattle in Merwara?

A.—I cannot say.

Q.—We have been told that after the famine they immediately bought a number of cattle?

A.—They got the money from *takavi* and as a grant from the Indian Famine Charitable Relief Fund.

Q.—Do you think that they had any resources of their own?

A.—No.

Q.—Has the full area been brought under cultivation?

A.—I cannot say.

Q.—It is difficult for the Commission to account for the enormous number on relief. What do you think of the character of the people, are they hardy or are they soft, especially in Merwara?

A.—I think the Mers are plucky, but not hardy.

Q.—Does life press hard on them in ordinary years?

A.—I have never seen them in an ordinary year. I have been with them only in a year of famine.

Q.—Do you think that the feeling of unwillingness to take relief was weakened by the famine of 1899 and that they in 1900 came more willingly to relief?

A.—Certainly, in Merwara that was the opinion of everybody.

Q.—Did you notice that they came to relief in whole families?

A.—Yes.

Q.—Did they cling together?

A.—Yes.

Q.—It was said that a large proportion of women came on the works, which would seem to show that they were the women of the adjacent States?

A.—After January the arrangements in the adjacent States were good.

Q.—If there was a disproportionate number of women to men would it not be a permissible conclusion that aliens had come on?

A.—It would show that the men had stayed at home.

Q.—What was to keep them at home?

A.—The love of doing nothing.

Q.—Can you give us any advice in regard to co-operation between Native States and the British Government in the matter of famine relief?

A.—I think that emigration which is the time-honoured safety-valve of famine, especially in the Western States of Rājputāna, should not be checked, but controlled.

Q.—You don't propose that in years of famine it should be checked?

A.—I would strongly oppose it.

Q.—How would you regulate it?

A.—The routes which the people take are well known. General posts should be established along these routes, and the people should be told at these exactly where they can find fodder and pasture and what arrangements are being made for their own relief.

Q.—Instead of having people wandering to Málwa where there was nothing, you would direct them to the North-Western Provinces or other parts of the country, and leave it to the Local Governments to deal with them. In regard to the people who remained at home and ultimately came to your works, can you suggest any way by which the cost of their maintenance and employment should be recovered from the States concerned. Do you think that would be a permissible thing to do?

A.—I should not debit the States with the cost?

Q.—Would you enforce on Native States a system of relief on the same scale as that of British districts?

A.—I have been very much surprised at the way in which the States gave relief, and the lavish way in which they spent their money; also the ready way in which whenever they were told about their people being in foreign territory they brought them back.

Q.—Would you have a system of registering aliens in our territories and returning them to the States?

A.—Yes.

Q.—Can that be done successfully?

A.—Yes.

Q.—We were told that you could identify immigrants at first, but that they afterwards invariably concealed their identity, which points to the fact that there was no relief in their own States?

A.—No doubt they had left their States before relief had been organized and nothing would induce them to believe that works had subsequently been properly organized.

Mr. Nicholson.—Do you know what the wages were on relief works in Native States?

A.—For a man 13½ *chhataks* in Mewár and 12 *chhataks* in Márwár; for a woman 9 *chhataks* in Mewár and 10 in Márwár; and for a child 6½ *chhataks* in Mewár, 8 in Márwár.

Q.—Do you think these were fair wages?

A.—Yes.

Q.—The rates in Ajmer-Merwara were 19, 14, 12 and 10 *chhataks*. Do you not think the difference would attract a large number of immigrants from Native States?

A.—I think the difference looks greater on paper than it actually was; because in Native States payments were made daily, and in the majority of cases in grain. The people actually got food.

Q.—In Ajmer-Merwara there was a minimum wage at least during the test period?

A.—Yes.

Q.—Was there the rest-day wage?

A.—Rarely.

Q.—There was a considerable margin between relief in the surrounding Native States and Ajmer-Merwara?

A.—Yes.

Q.—Why was the ticket system stopped?

A.—I cannot remember.

Q.—The Executive Engineer says it was due to the fact that it was impossible any longer to keep out the immigrants who wanted work?

A.—Probably: the Local Officer would know better than I.

Q.—With reference to the duties of the *Naib Tahsildár*, I understand that Public Works subordinates were under the famine *Naib Tahsildár*, except in all matters of arrangement and execution of works. Is that your view?

A.—The *Naib Tahsildár* had nothing to do with payment.

The President.—It occurred to me in regard to the evidence that has been given that there was some want of uniformity in the system of storing water in Rájputána for general purposes. The rivers run through many Native States and sometimes there is friction, and complaints arise out of the construction of bunds higher up and which cause depletion down below. Could not some system be evolved by which the State higher up would impound the water and this water would be passed on through sluice gates; one State should not be allowed to impound the whole of the water and allow those lower down to receive it only in dribbles. Has such a system occurred to you?

A.—I think it would be a very good thing if a regular system for the whole of the Rájputána was threshed out by an independent Engineer. The possibilities of irrigation are not by any means exhausted, and it would in future save a great amount of friction.

Major J. R. Dunlop Smith, C. I. E.

Replies by Major J. R. Dunlop Smith, C.I.E., to questions put by Commission on cattle preservation during famine.

My experience as Deputy Commissioner of the Hissár district in 1896-97 and as Famine Commissioner of Rájputána, including Ajmer-Merwara, during 1899-1900, has convinced me that the duration of the after-effects of famine in any tract where fairly effective steps have been taken to save human life depends almost entirely on the extent to which the cattle have been reduced. Both in the Punjáb and in Rájputána I have come across repeated instances of families now working in their old villages as common hired labourers, whose ancestors once owned lands and flocks of their own, but who have lost all in one or other of the periodical visitations to which insecure tracts are subject, and who were never able to resume their hereditary position. In Hissár I was unable to organize any effective scheme for the preservation of agricultural live-stock, as I took over charge of the district when a severe famine was already imminent. In Rájputána several plans were formulated with this end in view; but except in a few notable instances, either the various responsible executive authorities were not persuaded of their practical nature, or there was no money to devote to their execution. I write from memory as I have no famine literature with me in camp; but I think these schemes are alluded to in the final report of relief operations in Ajmer-Merwara during 1898-1900.

2. Briefly they were the deportation of sound selected cattle of both sexes (but especially young bull and cow-calves which had already been weaned), Government or the Darbárs taking charge of them on the owner's behalf and at his risk, and returning them at the close of the famine on receiving the cost of their up keep or writing that down as a *taqávi* loan. Another scheme provided for the deportation of such cattle by Government or the Darbárs after purchasing them outright and for their resale on fodder becoming available in their own villages or their reissue to applicants as *taqávi* loans. Another plan, copied from Gujrát, was the establishment of cattle farms where the animals could be stall-fed. An essential feature of all these plans was the utilization of the traditional reverence of the Hindus—particularly the wealthier Osmál and Agarwál mahájans—for kine.

3. In Ajmer there was a good deal of discussion about the matter; but it ended in nothing. I held at the time and still consider that much might have been done. Through the kindness of the Governments of the North-Western and Central Provinces large stretches of good grazing-ground

were actually reserved for us in the Jumna khádir and the Mandla district. No advantage was taken of these valuable concessions although up to the end of January 1900 hundreds of animals were being slaughtered in Nasirabad for the sake of their hides. The majority were a poor lot, but some 20 per cent. were all sound stock and might have been purchased at purely nominal rates and so saved. The slaughter did not cease in February. It was only stopped by administrative order in Nasirabad in order to avoid the risk of religious riots and was at once transferred to the Tonk State. So much for Ajmer-Merwára. As to Rajwára there was no State, with the possible exception of Tonk and Bundi, where the richer money lenders and traders did not maintain cattle homes at their own expense. But the efforts were confined to individuals, the administration of the homes was not always effective, and the cumulative effect was of little account compared with the vast amount of mortality and suffering. In three States, however, the authorities took organized action. The lead was taken by the Márwár Darbár, and it should be noted that not only was Márwár as severely stricken as any other State, but its finances were seriously crippled. Numbers of cattle were deported, as far as I remember, to the riverain tracts in Agra. When the people heard that some of these died either from the hardships of the march or from the unsuitability of their new surroundings, they began to hold back their animals. On this a cattle farm was started at the instance of a European lady, the wife of the then Resident, and from the end of December 1899 till the close of the famine the institution was successfully managed. I can bear personal testimony to its great value both as an object lesson in common humanity to all classes of the community and as an aid to the practical solution of a difficult economic problem. The example of Jodhpur was soon followed by Jaipur and Kishangarh, and the results in these two States were equally successful. But the measure which actually saved more useful lives than any other was the employment of the prickly pear cactus and the khair bush (*Capparis aphylla*). Wherever the prejudice of both the people and their cattle against the prickly pear were overcome, the results were most marked. On my tours I have been able to tell at a glance not only from the number and appearance of the cattle, but also from the condition of the trees, where the prickly pear was appreciated and used.

As far as my recollection goes, no animals were deported by the Jaipur Darbár; but large numbers belonging to Kishangarh found an asylum in the adjacent grazing tracts of the North-Western Provinces and Gwalior. No Darbárs cared to send their animals so far as the Central Provinces.

4. As to what should be done in future periods of scarcity, I would make the following recommendations:—

- (a) First the Famine programme of every tract which forms a unit of administration, such as a district or State, should contain

particulars regarding the nearest available grazing-grounds in the event of a fodder famine at home. It is always possible to ascertain to what tracts animals can most conveniently be sent with the minimum of risk, what number of head each tract will hold, and on what terms as to grazing dues, etc., they will be received. If arrangements are made deliberately before there is any necessity of putting them in force, nine-tenths of the loss and confusion which attended our efforts in this direction during the recent famine will be avoided. There will be little or no friction between both the people and the authorities of the two tracts, and the evils of emigration, that great safety-valve of a period of stress in Western Rájputána, will be proportionately curtailed.

(b) When famine is evidently at hand, establish a regular system of deportation to the localities already fixed upon. Government or the Darbárs should either take charge of the cattle or purchase them outright and send them off in charge of competent herds to the grazing-grounds. These operations should be strictly supervised by the Civil Veterinary Department. Should the recommendations of the present Commission on horse and mule-breeding be accepted, the officers of this department will probably be able to devote more time in the future to the care and protection of cattle. Even should this not happen, horse-breeding must give way to the more pressing wants of the people, and the cattle must have the first claim. There will be always risks in deporting cattle; but these will largely disappear if only sound and young stock are taken up, if the process is intelligently and carefully carried out, and if the herds are entrusted in their temporary homes to men interested in their welfare. In this particular scheme I would invite not only the co-operation, but the rivalry, of the wealthier Hindus.

(c) Cattle camps should be established at selected points; and it is in connection with these institutions that the assistance of the non-official community can most profitably be employed. Fodder locally collected, as described below, or imported by rail and road, should be stored. These camps should be so arranged as to allow of the animals being changed from paddock to paddock, and they should be regularly inspected by the Civil Veterinary Department. All the natural products of the animals should be

utilized; and I would allow a stallion bull to run with the herds. One disastrous result of the late famine was the practical cessation of cattle breeding all over the province for nearly twelve months. The male stock should be employed as far as possible on transport and other work.

- (d) As soon as famine appears inevitable inquiries should be made as to where road transport is required. Railways are spreading all over India; but they cannot reach every village. This year famine developed with great rapidity in the Kotah State; and if it had not been for the presence of large numbers of Márwár cattle in search of grazing, the transport arrangements must inevitably have broken down. The transport difficulty again in the Mewár hills was a constant source of anxiety until the very earliest *kharíf* staples ripened in 1900. They were more than once on the eve of collapse; and in the case of the Bednor and Deogarh parganas, we had to employ very large numbers of men and women as human transport. Had our subsequent difficulties been foreseen, we should not only have saved hordes of cattle which perished, but should have kept no small proportion of people off the works in Sindhi and Márwár by affording them congenial employment.
- (e) In the opening stages of a famine, as soon as the test works have revealed the necessity of organized relief, the collection of fodder should be made the very first relief work. Payment would be by results. In some States—notably in Shahpura—this policy was adopted in 1899-1900 with eminent success. Grass is available only during the first few months of a famine. It should be collected first of all, and when that is all over the forest should be swept of all leaves and prickly pear should be stored. The khair bush is of so much value as human food that it ought not to be touched until the fruit appears. When the berries are green and hard (at this stage they are called "*tind*" in the South-East Punjáb) they are mixed with grain and cooked by the poorer classes. But when they ripen (they are then called "*pinju*") they are most unwholesome, and the shrub should be ruthlessly shorn. The twigs should be cut, dried, and stored and then issued as fodder from, say, June till the rains produce natural herbage. This collection of fodder is one of the most useful of Famine

works and, if payment is by results, it is little liable to abuse. It forms also a necessary supplement to the cattle camps. What is not required for the camps can be issued as *taqávi* loans.

- (f) One of the best securities against a fodder famine is the maintenance of a regular scheme of fodder reserves; but no preventive measure is attended with greater difficulty. It can be more easily carried out in a Native State than in a British district. Such a scheme was started in Kishangarh after, I think, the famine of 1891-92, but was allowed to lapse soon afterwards, and we derived no benefit from it in the recent famine. Stores of fodder cannot be usefully or profitably collected by Government or State agency. The village community must be the responsible agency, and I must say that in no part of British India that I know is that community strong enough or homogeneous enough to be entrusted with the working of a scheme of this kind. The store would have to be common to the village or at least to the *tarf* or *patti*. For the fodder to be of real use when wanted it would have to be systematically renewed every year, and the presence of alien landlords in so many villages, holding as a rule by possession and not by ancestral shares, would render the annual collection and disposal of fodder a cause of friction and actual swindling. In "famine districts" such as Hissár a competent Deputy Commissioner might do much by his personal influence to persuade the people to store fodder just as—up to at any rate the year 1896—they used to store grain; but I confess I do not see any hope of establishing any general procedure for the working of fodder reserves which would be, *mutatis mutandis*, applicable to different districts.

- (g) The railways as a rule lower their rates of freight for grain during a famine, and Native States have, at least since the great famine of 1868-69, adopted the policy of removing all duties on the export, import, and transit of grain during a year of scarcity. The railways have been largely recouped by the increase in grain traffic, but the States have suffered heavy loss and few if any recognise that these concessions bring any advantages, direct or indirect, in their train. I would give the local authorities of all affected tracts power to put a heavy export tax on all kinds of fodder, on hides, and on bones. The tax on fodder might be taken off as soon as

the rains produced sufficient natural grazing; but that on hides and bones should be maintained for a fixed period, say twelve months, after the conclusion of the famine. The chief objection to such taxes would be that such measures are directly opposed to the principles of free trade. But it must be remembered that during a famine the railways have not sufficient rolling stock to carry much else but food-grains. Certainly until both the main and branch lines of the Rájputána-Málwa system are doubled throughout, that railway in the event of famine will not be able to do much more than keep up a steady supply of food for human beings. Free-trade arguments can apply only when there is a complete facility of transport. I would also encourage the railways to double their rates of freight for hides and bones. Speculators would of course establish local tanneries and hold up their output until rates had reached their normal level. Two such tanneries at least were started in Sirohi (Abu Road) and Mármár (Páli) during the recent famine. To obviate this I would put a heavy monthly tax on such manufactories. Then, again, people might deport live cattle and slaughter them in some tract not affected by famine, and the authorities might not be in a position to say whether the animals were not being deported for grazing. If the railway rates were doubled as suggested above, this method of evading the export duty would be seldom followed, and might be further discouraged by a system of taking security in suspicious instances.

- h) No class suffered more heavily than the *kumhárs* (potters) who do so much of the carrying trade. The mortality among their donkeys was appalling. As a rule, they are not revenue-payers and they are therefore too often nobody's children. They and their animals suffered and died in silence during the famine, the effects of which they will continue to feel long after the calamity has become only a memory to the zamíndárs and their cultivators. The Imperial Government has, owing to the shortness of the mule supply, a vital interest in the donkey question; and the moral obligations of the authorities to the great body of *kumhárs* are as great as those laid upon them with regard to any other section of the people. A donkey transport service should generally be organized in a famine. One drawback to the relief administration at Ajmer-Merwara was the want of control over the grain-

dealers in the various camps. I would give these men proper accommodation and supply them with donkey transport and then insist on their selling good, wholesome grain at market rates. There is ample room for donkeys in any transport scheme as well as for bullocks.

- (i) One very important matter which has an indirect bearing on the preservation of cattle is the havoc worked by goats, not only during a famine, but in ordinary years. In times of scarcity Government and other forest reserves are freely opened to cattle of all kinds. Sheep and cattle do no harm; but the damage caused by goats is out of all proportion to their usefulness as providers of milk and wool. In a famine goats should be rigorously excluded from all grazing-grounds which are under control, and in ordinary years the grazing and *tirni* dues on these animals should be appreciably higher than on others. From the consular reports on Sicily I gather that the depredations of the goats have actually had a marked effect on the rainfall of the island, and the same phenomenon is happening in Cyprus now. One of the greatest securities against famine in arid tracts is a systematic development of the area under trees, and there is no greater obstacle in the way of such development than the goat.

5. The above notes have been hurriedly put together in camp and have been compiled entirely from memory. I leave for England very shortly, and there is not time to collect the notes I took in the two last famines or to refer to reports and other famine literature. Some of my suggestions may not be applicable to British districts, but I trust that they will receive consideration. I am convinced that much more might be done to save cattle than has hitherto been attempted in any part of India. The responsible authorities in a famine are usually overworked and have scanty leisure to spare from the heavy task of saving human lives: there has also been a general feeling that, after all, the unusual mortality is not an unmixed evil as so many useless animals are destroyed, and that, as it seems inevitable that so many (50 per cent. in some cases) of even the rescued animals succumb, the expense is not justified by the poor results obtained. Personally I consider these opinions are not sound, and that we are not warranted in disclaiming our manifest responsibility for the lives of cattle until as systematic a scheme for their preservation has been formulated and given a fair trial as has been done for human beings under existing Famine Codes.

THE REVEREND MR. BROWN, AJMER.

The President.—Were you in Ajmer during the whole of the 1899-1900 difficulty?

A.—No, I came out in November 1899. I was in Beawar.

Q.—You speak for Merwara?

A.—Yes.

Q.—Is it a part of your business to go into the villages?

A.—We have village schools.

Q.—When did you first see great pressure of distress come on the people?

A.—When I came out in November 1899.

Q.—Was there at that time adequate agency for distributing relief in the villages for those unable to work?

A.—So far as I know there was, but I cannot speak very much for that. My time was taken up into the care of orphans and other mission operations. I did not visit the villages as much as in ordinary years.

Q.—Did you receive any complaints at all to the effect that people who could not go to works remained unrelieved in the villages?

A.—No.

Q.—Did you visit the relief works?

A.—Occasionally. I was more taken up with the administrative works of the mission.

Q.—On these occasions that you visited the works were complaints made of insufficiency or irregularity of payment?

A.—No direct complaints. I could only speak from hearsay that payments were irregular sometimes.

Q.—On the whole do you think the administration of relief in your neighbourhood was adequate to the necessities of the case?

A.—I think it was. It was complicated by a number of aliens, waifs and strays who came in from Native States.

Q.—Were there any points in the system of relief which seemed to you to call for improvement?

A.—Compared with my orphanages I think there was room for improvement in the poorhouses; I mean in this way that they require more European supervision and more constant supervision.

Q.—Does that apply to the ordinary management of the poorhouse or to the hospital side of the poorhouse?

A.—To the ordinary management of the poorhouse.

Mr. Nicholson.—A great part of your duty was taken up with looking after orphans?

A.—Yes.

Q.—You collected these orphans from time to time in the villages?

A.—They were brought in from Native States as well.

Q.—Not merely children of immigrants?

A.—No, we have 10 or 12 stations in Rájputána.

Q.—How many on the whole came on your hands?

A.—Between six and seven thousand.

Q.—Of all ages?

A.—Yes. I am speaking for the whole mission.

Q.—How many orphanages were there?

A.—Four, and we had small orphanages in every station.

Q.—What was the highest number you had?

A.—On the 15th of August 1900 there were 2,776 boys and girls and 284 widows and deserted wives.

Q.—Did you send the children away to their friends?

A.—No, they very often just went away.

Q.—Did you not keep them under ward?

A.—Yes, but we did not closely confine them.

Q.—What was the mortality among them?

A.—The total mortality up to 31st December was 2,827.

Q.—What was the cause of so great a mortality, for I assume that the orphanages had personal supervision and no doubt medical missionaries were among them?

A.—Yes, every one had European medical missionary attendance.

Q.—And I suppose they had European superintendence, ladies and others. Notwithstanding that there was this immense mortality: what was the reason?

A.—Many of the children, especially those from Native States, were very much run down when they came to us; some died when they reached the mission compound.

Q.—Did they come in a starving condition?

A.—Yes, from Deoli and Kekri especially.

Q.—Did your agents send them in to you, or how was it done?

A.—No, very often parents brought in children; they were not all really orphans, though they were so called. We often picked up boys and girls in the streets and very often they came in of their own accord.

Q.—What was the age at which you admitted them?

A.—At first not above 14, but a considerable number came later on above that age.

Q.—As regards those that were sent to you, were they sent under conditions?

A.—No. The Cantonment Magistrate, Nasirabad, sent us some.

Q.—Did he make any condition?

A.—No.

Q.—You have returned some to their parents?

A.—Not many have gone back.

Q.—How many have you left?

A.—On the 31st of December we had 1,637 boys and girls and 142 women.

Q.—Under the circumstances that is probably the actual residue that will be left on your hands?

A.—Yes.

Q.—These children are not likely to be claimed in future, are they?

A.—No; some of the women we expect will go.

Mr. Bourdillon.—Did you get any Government assistance?

A.—Yes, Government gave a grant from the Indian Famine Charitable Relief Fund.

Rai Bahadur Syam Sunder Lal.—When did you get those orphans from Nasirabad?

A.—I cannot say.

Q.—Was it during the course of the famine?

A.—Yes.

SETH UMED MAL, MAHAJAN.

I GAVE relief in Tonk and other places in the way of cooked food. There was a poor-house opened by Government in Ajmer to which numbers of people came in a distressed state generally from the Native States, probably 30 per cent. of whom died. Cash doles were given and were suitable. This was a worse famine than that of 1852, 1870 and the several other famines that have occurred in the intervening period. The *kharif* of last year was 25 per cent. under the normal, which fact was attributable to the want of cattle and the sickness prevalent generally. Relief from the Indian Famine Charitable Relief Fund was given to widows and orphans, in many villages the relief given was in the shape of blankets and clothes. Money for the purchase of the bullocks and seed was also distributed. There was great delay on the part of the Rájputána Railway in carrying grain, in consequence of which there was a rise in prices. Subordinate railway officials cannot be trusted.

RAO BAHADUR SUKHDEO PERSHAD, FAMINE SECRETARY, JODHPUR STATE.

The President.—You are Famine Secretary of the Jodhpur State ?

A.—Yes.

Q.—When did famine first make its appearance in Jodhpur and Marwar ?

A.—Traces were being felt from July.

Q.—Had you scarcity or famine in 1897 ?

A.—We had scarcity.

Q.—Was there much pressure in 1897 ?

A.—Not so much.

Q.—From 1897 to 1899 what sort of crops had you ?

A.—We had about ten-anna crops.

Q.—And so the famine in 1899 was caused by the failure of one *kharif* ?

A.—Yes.

Q.—Had you *rabi* in 1900 ?

A.—Yes, we had, but our country produces very little *rabi*.

Q.—Have you any well or tank irrigation ?

A.—Yes, tank irrigation has been only recently introduced.

Q.—For your irrigation do you depend upon the rainfall ?

A.—Yes, with the exception of submontane districts in which there are wells.

Q.—How deep do you have to go in well digging ?

A.—As you go away from the hills the water-bearing strata goes deeper and deeper, near the hills it is 32 to 40 feet, in the desert you would have to go 300 to 400 feet.

Q.—When the rains failed in 1899 did you do anything in the way of making advances for wells ?

A.—Not much.

Q.—It costs a great deal ?

A.—Yes, and the chances are that the water may be so saline as to be of no use.

Q.—You have a considerable number ?

A.—Yes, only in those parts of the country which are near the hills.

Q.—Is it possible to extend the number of wells with any advantage ?

A.—Yes.

Q.—Has any policy with regard to the matter been adopted by the State ?

A.—The Darbar is contemplating doing it, and they have drawn out a programme for the future.

Q.—Will the Darbar do it ?

A.—Yes, private people won't come forward.

Q.—Will the Darbar construct the wells and recover the cost of improvements ?

A.—They will charge a watering fee for the wells.

Q.—The wells being constructed on private property ?

A.—Yes.

Q.—Does the Darbar own all the land of the State ?

A.—Yes, but there are petty chiefs who are members of the family.

Q.—Will the wells be constructed in the lands that are *khalsa* or on the land of the petty chiefs ?

A.—On the *khalsa* part.

Q.—Have you the practice of making advances for agricultural improvements for the purposes of seed or cattle ?

A.—It is not of old origin.

Q.—I notice that you did make some advances for agricultural purposes to the extent of nearly Rs. 1,65,000 ?

A.—Yes.

Q.—Is it likely that that will be a permanent feature of the State's finance ?

A.—The finance is in a complicated position because the Darbar is owner of only one-seventh of the whole land, the rest belongs to the *jagirdars* ; out of 4,200 villages only 700 are *khalsa*.

Q.—I suppose the Darbar gets a certain income from the *jagirdar* villages ?

A.—Very small, Rs. 80 per thousand and a service.

Q.—The service is more valuable ?

A.—The service is in the shape of *sawars*.

Q.—When did you first commence to deal with famine in 1899 ?

A.—In October.

Q.—What were the first steps you took ?

A.—We started relief works on a large scale.

Q.—How many did you start ?

A.—We started two big works in the beginning.

Q.—Was the whole of the State equally distressed ?

A.—Yes.

Q.—Did people come in great numbers to your works?

A.—Yes.

Q.—By the middle of October you had as many as 18,000 people on works?

A.—Yes.

Q.—And by the middle of November?

A.—29,000.

Q.—What system did you adopt on your works?

A.—The task system.

Q.—What do you mean by the task system?

A.—The people were divided into gangs of 50 and over them there was a mate appointed. These gangs were grouped into a big gang of 500 persons, over whom one man was appointed, who could read and write, a *moharrir*; the gangs were sub-divided into parties of diggers and carriers, and for each party a task was allotted, and if they did the full task they got the full Code wage, if they did not do the full task they got a wage according to the work done, subject to a minimum wage.

Q.—Did you start upon that system from the beginning?

A.—On the big works we did but not on small works.

Q.—The small works were test-works?

A.—Yes.

Q.—And you began your big works on that system; did you continue that all through?

A.—Yes.

Q.—Had you any kitchens attached to the works?

A.—We had afterwards, not at the beginning.

Q.—When did you commence to have kitchens attached to the works?

A.—From December.

Q.—Well, what was your experience: did you find that the people did more than entitled them to the minimum wage or were they content with the minimum wage?

A.—They were content with the minimum wage.

Q.—And you could not get them to do more?

A.—No.

Q.—Well, your numbers increased so that by March you had 120,000 people on relief works, that was close on 5 per cent. of the population?

A.—Yes, that included *jagirdār* people, the Darbār admitted them too.

Q.—At the same time you had your kitchens in which people were given gratuitous relief?

A.—Yes.

Q.—Had you any system of village gratuitous relief?

A.—No, if persons were found entitled to the dole they were sent to a centre where there was a poorhouse and there they were fed; we gave village relief to *parda-nashins* and *Rājputs*.

Q.—Other people were told to go to a poorhouse at a certain central place?

A.—Yes.

Q.—How many poorhouses were there?

A.—24.

Q.—Scattered about the State?

A.—Yes.

Q.—Were poorhouses independent of and distinct from the kitchens?

A.—Yes.

Q.—At the end of March you had the greatest number of people on works, on how many works were 120,000 people employed?

A.—Ten big works and 80 civil agency works.

Q.—What do you mean by civil agency?

A.—Works under *Tahsildars*.

Q.—What was their nature?

A.—Digging tanks near the villages and clearing tanks.

Q.—So you had large works supplemented by a system of village works?

A.—Yes.

Q.—From what time was that scheme commenced?

A.—Village works were commenced previous to large works.

Q.—Were they continued right through?

A.—When the distress was greatest the major portion were drawn to big works and village works were contracted, when the rains were about to set in with the object of getting people back to their villages, these works were largely availed of.

Q.—Who controlled your village works, was it by State or by village agency?

A.—State agency, but we had the *panchayat* as subordinate to State agency.

Q.—In what way did you employ village agency?

A.—We took the *mahajans* with us in the distribution of wages.

Q.—I suppose by State agency you mean *Tahsildars*, measurers and so on?

A.—Yes.

Q.—What functions did they discharge in regard to village works?

A.—There were *amins* under them, they measured the work and when the wages were being distributed they asked the *mahajans* to come and be associated with them.

Q.—Now what was the procedure followed?

A.—They submitted a rough estimate showing the number of people that were likely to be employed and the number of cubic feet to be dug and the probable cost.

Q.—Did they entrust the remainder of the works, namely, the carrying it out to the local agency. When the estimate was submitted showing the cubic capacity, &c., and that was approved what did they do, did they make an advance to the *panchayat*?

A.—To the *Tahsildár*.

Q.—Who did?

A.—The *Darbár*, the *amíns* were placed in charge of works and when they were finished the money was distributed.

Q.—The *Tahsildár*, I suppose, had a large number of works under him?

A.—Yes, he had.

Q.—Did the daily distribution of wages depend upon the orders of the *Tahsildár*, or had the *amin* a sort of imprest advance?

A.—He had an imprest advance.

Q.—From which he paid the daily wages?

A.—Yes.

Q.—And then recovered his advance from the *Tahsildár*?

A.—Yes.

Q.—So you had 80 village works and 10 great public works?

A.—Yes.

Q.—Had you cholera upon the public works?

A.—Yes.

Q.—How many people crowded on your biggest works?

A.—35,000 on one work.

Q.—What was the organization you had?

A.—There was a *motamid* in charge of the whole camp with two assistants. A big camp of about 32,000 people. He looked to the arrangements, the bazar, the punishing of petty offences and water-supply. The Public Works Department looked after the measurements.

Q.—What was the class of work done?

A.—Earthwork.

Q.—Tanks or roads?

A.—Big tanks.

Q.—Were your public works subordinate to the *motamid*?

A.—No, they were independent.

Q.—On such a work as that with 35,000 workers what public works agency had you?

A.—They had one overseer, assisted by three or four sub-overseers, then *mistries* and people who took the musters.

Q.—These mustering clerks were those who were at the head of groups of gangs?

A.—No, they were different.

Q.—What pay did an overseer get who was in charge of 32,000 people?

A.—Rs. 175.

Q.—Had you the 35,000 divided into charges of 5 to 6,000?

A.—Yes, they were called *chaukris*.

Q.—Were you able to move off 5,000 to another spot without disturbing the remainder?

A.—With some difficulty.

Q.—Why could not the establishment have taken their tools and plant and have marched to another camp, 10 miles off?

A.—We should have to make previous arrangements for hutting, &c., which would take time.

Q.—But so far as the control and payment is concerned?

A.—There would be no difficulty.

Q.—Had you a medical officer attached?

A.—We have an Assistant Surgeon with one Hospital Assistant under him and a number of compounders, the medical staff was inadequate, we applied to Government but could not get more.

Q.—As regards emigration I notice in the beginning there were comparatively moderate numbers, and then they rushed up from December?

A.—In March the people who went outside and didn't find pasture as well as the usual labour after the harvest had to return.

Q.—Where do they go?

A.—They go to well-settled areas.

Q.—People with their cattle?

A.—Yes; they go to help the people of Gujrat and Malwa in the *rabi* cultivation.

Q.—Did that usual emigration occur in 1899?

A.—It did and with greater force.

Q.—What was the result?

A.—The result was that even there, there was scarcity and people had to come back.

Q.—Did they lose their cattle on the way?

A.—Yes.

Q.—Did they bring back many of their cattle?
A.—They brought back half.
Q.—Altogether what would be the loss of cattle in Marwár?
A.—About 80 to 90 per cent.
Q.—What is the number of cattle in Marwár?
A.—About 27 lakhs.
Q.—Do you mean to say 25 lakhs of cattle have died?
A.—Yes, in Marwár there was nothing left for them to eat, not a blade of grass.
Q.—Was there no importation of fodder?
A.—Only wealthy people could afford to get it. The Darbár imported fodder from Jhānsi for the *rasāla*.
Q.—Have the Darbár made that estimate that 90 per cent. out of 27 lakhs of cattle have died?
A.—That is the probable estimate, and tangible proof of the mortality is that 14 lakhs of hides have been exported.
Q.—That does not include, I suppose, the cattle that have died outside?
A.—No.
Q.—May not some of those 14 lakhs of hides have gone from the surrounding States of Marwár?
A.—No, our Railway does not run through there.
Q.—That was the state of things at the end of 1899, your people who were in ordinary years in the habit of emigrating in search of work and of going there with their cattle found nothing there, lost their cattle and came back, did these people then go on your relief works?
A.—Yes.
Q.—Did they come back in a depressed condition?
A.—Yes.
Q.—Did you open any poorhouses?
A.—Yes. At the head of each *hakumat*
Q.—Well you say that at the end of March you had cholera, was it very severe?
A.—In the beginning it was severe, but it was soon brought under control.
Q.—What was the rate of wages that the Darbár gave on its relief works?
A.—In the beginning we adopted the British Code wage, but found it was too liberal.
Q.—In the course of time you adopted your own scale, what was that?
A.—Twelve *chattaks* for men and 10 for women.
Q.—That was the minimum wage?
A.—Yes.
Q.—And for a working child?
A.—Eight *chattaks*.
Q.—Was there not some provision in your scale by which a man might earn more than the minimum wage?
A.—Yes.
Q.—What was the maximum wage under your scale?
A.—14, 12 and 10.
Q.—Did you find that many of the people earned more than the minimum wage?
A.—Few people earned more.
Q.—Did you find that they remained in healthy condition on the minimum wage?
A.—Yes.
Q.—Do you think that that wage is sufficient to maintain people in good condition in Marwár?
A.—Yes, it is sufficient.
Q.—Did you pay them daily or at longer intervals?
A.—We paid them daily.
Q.—Did you find any difficulty in that?
A.—None.
Q.—In addition to these measures of relief you had a system of cheap grain shops, I think?
A.—It was only taken up in the beginning when the *banias* formed a baneful clique to raise prices against the poor people.
Q.—Did you import grain to sell it?
A.—Yes.
Q.—From where?
A.—The North-Western Provinces.
Q.—Did you establish those shops everywhere?
A.—Only at Jodhpur.
Q.—What was the effect of that action?
A.—Prices were made easier.
Q.—Did you find that it interfered with the importation of grain privately at all?
A.—It did not.
Q.—Grain was imported notwithstanding the action of the Darbár?
A.—Yes.
Q.—Well, then, when grain was imported what did the Darbár do?
A.—The Darbár withdrew its grain shops.

Q.—I notice that the mortality on your works was considerable?

A.—Yes, it was.

Q.—Was there much immigration into your works from other States?

A.—Not much.

Q.—How is this accounted for. Am I right in thinking that these figures are correct, for instance, for January you show on civil works a death-rate of 178; is that per mille per annum?

A.—Yes.

Q.—Your greatest death-rate was in June when the death-rate reached 460 per mille per annum. Was there cholera in June in the villages?

A.—This represents only the percentage on those people who were then there. In June the number was very limited on civil agency works and so the percentage was very high and besides there were a number of emaciated people there.

Q.—These figures are not a percentage for the whole population?

A.—No.

Q.—They are really a percentage on the people on civil works?

A.—Yes.

Q.—Well, the percentage on departmental works was 136 in June?

A.—On departmental works we had medical relief, on civil agency we hadn't.

Q.—The mortality on village works was greater than on departmental works?

A.—Yes.

Q.—Is that so?

A.—Yes, if medical relief is not available the death-rate does rise.

Q.—The idea is that if people are kept near their villages and are fed, the death-rate is less than if they are massed together in large bodies?

A.—In cases of epidemic that may be the case.

Q.—Your experience was that the mortality upon village works was greater than the mortality on big public works?

A.—Yes.

Q.—Might that be explained in this way that the strong and healthy went to departmental works while the weak and unhealthy remained on village works?

A.—Yes, the majority of the weak and unhealthy were on village works.

Q.—Does the Darbár recover its revenue in cash or in kind?

A.—Formerly it used to take the revenue in kind, but now they have introduced the cash system, but it is flexible.

Q.—What do you mean by flexible or elastic?

A.—It depends upon the crop, if there is a twelve-anna crop we take twelve annas revenue and so on.

Q.—Who decides on the character of the crop?

A.—The revenue officers and the village people.

Q.—Say a *kharif* crop is sown in June and reaped in August or September, when does the village officer make his *partál* as to the character of the crop?

A.—In August.

Q.—He goes about and sees the character of the crop, does he judge by every field or decide broadly?

A.—We make inspection field by field (*girdawari*). We keep a rain register also, the amount of rain alone is not a fair index as to the crop, it must be seasonable.

Q.—Do you keep rain registers in every village?

A.—Yes, rough rain gauges.

Q.—Have you *patwari's* in every village?

A.—Yes.

Q.—And *patels*?

A.—No.

Q.—Does the *patwari* keep the rain register?

A.—Yes.

Q.—Does he know how to gauge it, is he taught?

A.—Yes.

Q.—Have you central schools at which you teach them?

A.—There is a *hawaldar* for every three or four villages and he explains it to them.

Q.—Does the *patwari* send in his statement regarding the crops in every field?

A.—No, in the whole of the village.

Q.—Does he strike an average?

A.—He simply enters what is sown, and if there is any special damage in a field he notes it. There is a man over him—an Inspector—who goes and inspects whether the *patwari's* statement is correct or not.

Q.—Does he inspect each village?

A.—Yes.

Q.—When he makes that inspection he sends on the *patwari's* report with his remarks?

A.—Yes, then there is a *daroga* over him and he inspects only a percentage, and then the Superintendent, who inspects one village in each circle, endorses his remark and also the opinion of the *chaudhari* of the village and also the opinion of the *chaudaris* of the neighbouring villages.

Q.—Then every *chaudari* has to inspect not only his own villago but the villagoes of his neighbours?

A.—They know it, they are themselves cultivators.

Q.—Then where does their information go?

A.—Before the Council.

Q.—Does the Council decide in every case?

A.—They only pass orders, they accept what the Revenue Superintendent recommends.

Q.—Do the papers of 600 villagoes come before the Council?

A.—A statement is compiled.

Q.—The real responsibility rests with the Superintendent?

A.—Yes.

Q.—What is the pay of the Superintendent?

A.—Rs. 300.

Q.—Well, then, the Superintendent says in their villago there is a twelve anna crop, and the order is to collect twelve annas from that villago?

A.—Yes.

Q.—The cash revenue on the villago has been already fixed?

A.—Yes.

Q.—*Batai* has been changed for *nagdi*?

A.—Yes, in the *Khalsa* not in the *jagirs*.

Q.—Do the *jagirdars* recover in grain?

A.—Yes.

Q.—How long has this been in force?

A.—Since 1893.

Q.—Who introduced it?

A.—I did the assessment.

Q.—Who was your Political Agent?

A.—Colonel Abbott.

Q.—Has it been working satisfactorily since 1893?

A.—Yes.

Q.—But do the tenants like it?

A.—They have taken to it.

Q.—Do you ever find that the crop which is returned as a ten-anna one is really a twelve-anna one?

A.—Sometimes that is done, every system is liable to mistakes.

Q.—Is it ever the case that a ten-anna crop is returned as a twelve-anna crop?

A.—No.

Q.—Is there any right of alienation of land in the State?

A.—As a rule there is not.

Q.—Is land ever alienated by a form of sub-lease to a *bania*?

A.—Sometimes.

Q.—Is that on account of his being mortgagee?

A.—Yes.

Q.—Does the *Darbār* ever allow mortgaged land to pass out of the hands of the original holder?

A.—No, they do not.

Q.—What action do they take if it comes to their notice?

A.—The mortgagee is given so many years in which to reconp himself from the land of the debtor, there is the system known as *baraskati*, at the end the debt is wiped off.

Q.—When such a thing occurs does the mortgagee leave the old holder in possession as cultivator?

A.—Yes.

Q.—When he does that I suppose the old holder, who is the cultivator, has to agree to any terms which the mortgagee may wish to impose?

A.—Yes, the terms are sometimes exacting.

Q.—Does the State ever interfere in such a case between the mortgagee and cultivator?

A.—Yes.

Q.—Does it limit the amount of his rent?

A.—Yes.

Q.—Do they enter into a consideration of the debt, do they go behind the bond, do they consider what the circumstances of the case are and say to the mortgagee,—you lent this man Rs. 100 you have already received Rs. 25 in interest, and now we will let you get back 75?

A.—Yes.

Q.—Do the Courts do it?

A.—Yes.

Q.—Is there a distinction between the courts and the *Darbār* in *Murwār*?

A.—The *Darbār* means the final authority.

Q.—Are they *Munsiffs* or *Tahsildars* who make these arrangements between creditor and debtor?

A.—The *Tahsildar*.

Q.—Does the debtor make an application to the *Tahsildar* or does the creditor do so?

A.—The debtor generally does it.

Q.—Was the full normal *kharif* area sown last year ?
A.—No.
Q.—Nearly ?
A.—Yes.
Q.—How did they get cattle to sow it ?
A.—They borrowed money and have obtained an enormous amount of cattle from Rutlam, Mathra and other places.
Q.—Are the class of cattle worse or better than they had before ?
A.—They are inferior.
Q.—I suppose they had to buy the class of cattle that they could get ?
A.—Yes.
Q.—How long will it take Marwar to recover from the famine ?
A.—Ten years.
Mr. Nicholson.—Is this practice of composition of debts an old practice or a new one ?
A.—It has been going on for many years, it is immemorial.
The President.—Is it an old immemorial practice of the country coming down from ancient native times ?
A.—Yes.
Mr. Nicholson.—What were the arrangements made in connection with immigrants, had you depôts or what ?
A.—As soon as we received information of them we sent our men to bring them back.
Q.—Did you keep regular depôts ?
A.—Yes, there was one at Beawar; as soon as they were able to walk we marched them off.
Q.—Was that done to any great extent ?
A.—Yes.
Q.—Do you think that it is possible to establish greater co-operation between the Government and *darbárs* of Native States in regard to immigrants in time of famine ?
A.—Emigration is the antidote of famine for us. As we form part and parcel of the Imperial Government we must look to them for help. There is a traditional right on our side, our people have always gone to Malwa and elsewhere and why should they be checked now. The physical state of the country is such that it cannot stand the strain of supporting such a large number of people.
Rao Bahadur Syam Sunder Lal.—Did you not ask *jagirdárs* to start relief in their own *jagirs* ?
A.—We did, but they were not equal to the task and so we had to help them.
Q.—Did you give them any loans ?
A.—No.
Q.—Were hand ploughs successful ?
A.—Yes, they did a lot of good.
The President.—You have a system of village records ?
A.—Yes, now we have.
Q.—And a village field map, cadastrally surveyed ?
A.—Yes.
Q.—The field book showing the owner of every field and his title in the field and the character of the field ?
A.—Yes.
Q.—Does your record show the name of the mortgagee of a field or of any land ?
A.—If he be the mortgagee with possession.
Q.—Do you bring the mortgagee upon the record as the holder *pro tem.* ?
A.—Yes.
Q.—And have you the actual cultivator on the record also ?
A.—Yes.
Q.—When application is made for a settlement such as you spoke of, and an order is passed that the creditor is to have the land for 12 years say, is the fact of such an order noted on your records ?
A.—Yes.
Q.—Is a copy of the order sent to the *patwári* for registration in his records ?
A.—Yes.
Q.—In what book is it noted ?
A.—In the *jamabandi*.
Rao Bahadur Syam Sunder Lal.—Have you thought of any scheme for the storage of fodder in years of plenty ?
A.—We have thought of it but the people don't agree to it.
Q.—In countries like Marwar and Bikanir there are big plots which lie waste and which could be used by the *Darbár*. Could not some arrangement be made ?
A.—It can be tried but I cannot say if the people will take to it.
The President.—Are there anything like village banks in your State ?
A.—No.
Q.—Do you think there is a necessity for them ?
A.—Yes, there is because *baniyas* charge heavy rates of interest. A village bank would be a boon.
Q.—Is the *Darbár* thinking of trying any such system ?
A.—It is contemplated, but there will not be sufficient money for the purpose.

MAJOR E. C. SPILSBURY, SUPERINTENDING ENGINEER.

The President.—Were you in charge in 1899?

A.—I am Superintending Engineer; I have been in Rájputána since 1898.

Q.—What works had you open in Ajmer when you joined?

A.—A single test work. There was a good deal of road metal collection.

Q.—Are you familiar with the system which prevailed on the works?

A.—Yes; I was in Ajmer-Merwara from October 1899 to January 1901 and I was looking at the organization a good deal. We gradually worked up to the North-Western Provinces Code in January 1900.

Q.—Had the terms been easy?

A.—I think they were in Ajmer. In October and November there were two different systems, and that in Ajmer was a great deal too attractive. In Merwara it was always checked by the ticket system till December. We had a great number from Kishangarh and Jaipur, and we were almost swamped. There was no restriction on people coming to works in Ajmer.

Q.—What were the rates of wages in Ajmer at that time?

A.—20 *chhataks* 15 and 8. The minimum wage given on rest days was the attraction.

Q.—Were works then (October and November) open in Native States?

A.—I think not.

Q.—That continued till the new year?

A.—The test work system was abolished in December. A more stringent one was adopted; there were no minimum and no rest day wages. That had the effect of a considerable fall in the numbers. They were reduced by nearly one-half. I think the people who disappeared were mostly from Native States; by that time they were drafted off or their own works were opened.

Q.—They fell from 35,000 in December to 19,000 in January and 15,000 in February, but rose again in March. That was on account of the greater distress, I suppose?

A.—Yes.

Q.—And you worked on the North-Western Provinces system to the end?

A.—As far as we could.

Q.—What was the character of the works you carried out?

A.—Tanks, metal collection and roads; mostly the first; sometimes original tanks, but as a rule repairs to existing tanks, entailing very heavy earthwork in the case of a large tank.

Q.—Is there a large field for bunding up streams for preserving water?

A.—Very little; in fact the "original" works would never have been done in ordinary times; they were non-paying.

Q.—Is it part of the ordinary Public Works administration to create reservoirs for irrigation?

A.—Yes; we bund reservoirs in suitable sites.

Q.—How do you arrange with the claims of Native States?

A.—As a matter of fact, that is what stops us now; there are practically no sites left for tanks simply for that.

Q.—You have a congeries of Native States all round the British districts, and rivers run through Native States to British territory, and if you bund the water high up you shut it off from the people lower down?

A.—We don't interfere with existing rights of tanks. There is nothing to prevent any one bunding up a stream, but there is hardly a stream left that has not a tank somewhere.

Q.—Would it not be desirable to have for the future a large scheme by which the claims of all parties would be considered?

A.—I think the rainfall here is too precarious to work that system.

Q.—So you are anxious to impound all you can first get?

A.—Yes.

Q.—But could it not be arranged that, having made provision for yourselves, you could then let off the water below by a weir?

A.—I am afraid it would not act here. We have thought of it several times. It might do for British territory.

Q.—I should have thought the *darbárs* would be prepared to accept a scheme of that description, with the object of conserving all the water you possibly could?

A.—It is a thing which will have to be done. The present rule is not to interfere with existing rights.

Q.—Let us come to Merwara. You found relief works there and over 40,000 people on relief. Were they test works or relief works?

A.—They were not called test works, and there was no minimum wage. They did not attract the same class of labourers as the Ajmer works did. The North-Western Provinces system was enforced in Merwara at the same time as in Ajmer.

Q.—You had no system of village works as a reserve?

A.—It had been thought of, but nothing had ever been worked out.

Q.—Had you the engineering oversight of Native States?

A.—Only in an advisory capacity. They did not ask my advice; but it was pointed out to them that the Ajmer railway survey happened to be going on and it would be a good work for them. I was not advised as to the system of work adopted, but we got some engineers for them.

Q.—Were the numbers on the Merwara works more than the case required as far as British districts were concerned?

A.—I do not think so, except that in Merwara there always seemed to be a great excess of women; and I think they were relatives from Native States.

Q.—The Native States sent on to our works people they did not want to support themselves?

A.—That is what it comes to.

Q.—Did you see any emaciation?

A.—When I first went they were certainly badly off in the southern parts, but I noticed a distinct improvement when I went there three months after; except those whom I knew to be from Native States, a certain number of whom were always about poorhouses. They were not allowed on our works, but kept in poorhouses.

Q.—Were the tasks enforced in such a manner that people not needing relief would not have come?

A.—Yes; where the system was properly enforced. After the North-Western Provinces system was introduced the system was certainly properly enforced in Ajmer, but I am afraid they got a little slack in the latter part of the time in the southern parts of Merwara; about June, July and August. There seemed to be a lack of management there in many ways. They were a little unmethodical in Merwara in 1899.

Q.—When you had 56,000 people on relief was the system unmethodical?

A.—No; we had a good method in operation then. It was the want of establishment.

Q.—From January 1900 to the rains had you any fault to find with the system in Merwara?

A.—There were a good many changes. Merwara was under a separate division in the end of December, and the Executive Engineer was physically unfitted by ill-health. He went away in March; a new man was brought and there was also a change of Assistant Commissioners. These changes had a sort of prejudicial effect on the administration; except for that there was no substantial fault to find with the system. I went away to Abu in March and came back in the middle of August. I found the works had not been carried out so well as they should have been from a technical point of view. We had intended to consolidate a lot of metal and there was a good deal spread, and things like that.

Q.—Did that react upon the administrative aspect? Was there a want of discipline among the labourers?

A.—To a certain extent. There was a difficulty in the establishment; they kept on going. People object to serve down there. It was not a question of pay; there has always been a difficulty to get them together.

Q.—Did this affect the physique of the labourers?

A.—I think not.

Q.—Have you any advice to give as to any modifications or improvements in the system you adopted in both districts from January 1900 onwards?

A.—The only point I can think of is that the Staff Corps Inspecting Officers should be put under the Public Works entirely. We had a modified system. The first officers who came were under the Commissioner, but when the North-Western Provinces Code came in the question was discussed whether they should not come under the Superintending Engineer; and a compromise was arrived at. They remained under the Commissioner as before, but I think they should be put under the Superintending Engineer.

Q.—How would you manage for the villages?

A.—Have other officers for them; the ones we had in the famine did both civil and public works.

Q.—You had to do the best you could with a limited staff. You did not get so many Staff Corps Officers as you wanted. Were the works many or few in Merwara?

A.—Many; scattered.

Q.—What was the largest number you had on work?

A.—Occasionally 15,000.

Q.—Would you have your Staff Corps Officers travelling about to see that everything was done all right?

A.—I would have it exactly as in the North-Western Provinces Code, where he reports back to the Superintending Engineer.

[Witness added.]

I would prefer, so far as technique is concerned, that the report should be to the Superintending Engineer; that is measurement, laying out works, and so on.

Q.—But the adjustment of tasks?

A.—No; that is not a professional matter. That is a matter for the Commissioner, though the Engineer could give his opinion about it.

Q.—With regard to closing works, was there a stiffening of tasks to force the people back to their fields.

A.—In Ajmer they went back of their own account; in Merwara they rather stuck on to the works—our own people. They got so accustomed to being there and did not care to change their habits.

Q.—Were the wages earned by a whole family a little more than necessary?

A.—It was rather liberal. But for the individual it was about right. I am not sure that 14 *chhataks* would not be too little for a working woman.

Q.—In 1897 they got only 13 and the men 14, then there was a division of sexes. In the future, what would you advise for test works?

A.—That there should be a stricter test, no minimum and no rest-day wage; and the test work period should be a short one; and when I was satisfied of the existence of distress I would immediately introduce the system of public works, not the Code task system, with provision for dependants and children.

Q.—Do you think any improvements could be made in the way of hospitals or kitchens?

A.—No, I think they were very well managed.

Q.—And the water-supply?

A.—That was very well managed too.

Q.—You said there were changes in the controlling officers; were there changes in the subordinate staff of overseers?

A.—No; they remained all through.

*Answers by the Assistant Commissioner, Merwara,
to the questions drawn up by the Famine Com-
mission.*

1. In the District of Merwara there was scarcity in 1898-99, as there had only been 10·66 inches of rain in 1898. The rains ceased early, and the Kharif crops over a large portion of the dry crop area in both districts were damaged. Tanks did not receive a sufficient supply of water, and the wells ran very low. The area brought under Rabi cultivation was very insignificant, and the outlook was very serious.

1896-97—Kharif harvest in dry land was lost.

The Rabi was a full average.

1897-98—The Kharif crop was a good average harvest, although some damage was done by the locusts.

2. The Rabi harvest was not so good as was anticipated, owing to frosts and high winds when the crop was just ripening.

Kharif sowing (1899-1900) was by far below the normal, and it was 70·69 per cent. of the normal area. The figures (1305f.) which was for an average good year have been adopted as normal cultivated area for statistical purposes of comparison, and in submitting statements of suspension of Land Revenue forwarded to the Government of India.

3. (a) 22 inches.

(b) 4 inches 33 cents. or 19·68 per cent. of the average rainfall.

(c) 1st September.

	Actual.	Average for five years.
(d) June .	2·0	5·34
July .	1·20	7·38
August .	0·06	6·03
September .	1·07	5·49

4. Normal Kharif harvest in normal cultivated area was 3,36,497 maunds and in 61,989 acres. Actual Kharif harvest of 1899 was 17,061 maunds and in 43,825 acres.

The actual cultivated area was 70·69 per cent. of the normal area, and the actual product was 5·07 per cent. of the normal produce.

5. Total population according to census of 1891 is 119,999.

(a) 70 per cent.

(b) 10 per cent.

PRELIMINARY ACTION.

6. When the rains failed in September 1898 reports were received from the Tahsildars that famine was imminent. The Collector then made personal inspection to verify the facts, and in October the Commissioner of the District also made an inspection tour to ascertain how the facts stood.

Assistant Commissioner—1.

7. There was no crop on the land, no grass for cattle, emigration began in earnest, and in some places people had begun to use khijur bark ground with flour for daily food.

8. When there were signs that the rains in 1898 were failing an extra establishment was employed in preparing estimates of the works, the programme of which consisted of 43 tank projects (either new or repairs), and improvements to seven roads. These works were scattered over the district, and provided labour for 28,000 persons daily for three months.

Those who could produce a ticket from the Circle Officer or Patwari of their village as a proof of their being in need of relief, were taken on Test Relief Works (Departmental), provided they could do the task prescribed in the Ajmer Code, the second test being the "Distance Test."

9. (a) Although programmes of Famine Relief Works were regularly kept up, the estimates for very few of the projects had been carefully examined, nor were they ready and sanctioned.

(b) The programme did not include scale of establishment necessary to meet any emergency, and no list of candidates qualified for famine service was kept up.

Large public works were the backbone of the relief system.

10. There was a programme of village works ready in reserve from the beginning.

In the following order :—

11. (1) Test works were started.

(2) Government forests were opened for grazing.

(3) Private charity in Beawar town was appealed to.

(4) Kitchens in villages and on works were opened.

(5) Poor-houses were opened in Beawar and Todgarh.

12. (a) The Patwari of the village, Girdawars, Tahsildars, Naib-Tahsildars, Famine Naib-Tahsildars, Famine Officers and the Assistant Commissioner made frequent tours of inspection. The immediate control of village relief lay with the Tahsildars, who arranged the details of distribution of gratuitous relief through the Patwaris of the villages, and were responsible for the prompt submission of accounts to the Collector, and on the passing of the accounts by the Assistant Commissioner they recouped the amount to balance the permanent advance left in their hands. This method of relief was adopted at an early period, when it became evident that the class of persons eligible for it would otherwise be left to starve.

(b) Except in the city of Beawar, the only local employment of labour consists of agricultural operations, and as these were impossible no stimulation would have had any effect.

(c) A Charitable Committee was formed, with R. B. Seth Champa Lal as Chairman, but at its

amalgamation with the Indian Famine Charitable Relief Committee the Assistant Commissioner (Captain C. T. Ducat) became its President.

(d) Special reports were called for weekly, and the Revenue staff also inspected the general condition of the people periodically, and reported to the Assistant Commissioner, who also made frequent tours through the district to personally observe the general condition of the people.

13. Yes. During the period of scarcity, 1898-99, 1899-1900, R70,536 were given under Land Improvement and Agricultural Loans Act.

	1898-99.	1899-1900.
Under Act XIX of 1888 .	45,462	21,492
„ „ XII of 1884 .	...	3,582

The conditions were to complete the improvement within stated time according to the work involved, failing which the amount was to be considered as misappropriated and recoverable in one lump sum, together with any penalty which the Collector thought fit.

The loans were issued to cultivating classes, who were chiefly Mers and Merats, chiefly for deepening wells.

They were recoverable in parts, *i.e.*, by half-yearly instalments.

14. Yes. In suitable localities, but the cost is high.

20-30 feet, but not long after wells deeper than this were dry, and only wells fed by springs held any water.

Yes.

Yes.

(a) No. The Kharif crop was a failure, and the Rabi one was an 11 pies one only.

(b) Yes.

(c) Yes. At one time it supported about 18,000 labourers as a temporary labour.

15. The relief works undertaken were the repairs to and improvement of Government tanks.

Yes. They were not under District Boards but were conducted by the Public Works Department Officers in consultation with the Civil Officers.

16. The task on the Test Relief Works were as follows :—

<i>Excavation.</i>		C. ft.	
Adults (Males.)	Black or red soil .	90	
	Soft morum .	60	
	Average morum .	45	
	Hard morum .	30	
	Soft rock .	20	
	Hard rock .	5	
	Stone breaking .	12½	
	Carriage for males .	90	for 100 ft. lead.
	„ „ females	60	„ „

The task for each individual digger with his complement of carriers was set out separately.

All who resorted to the works did what was prescribed as test work task. Females were not required to dig, but were employed for carriage only.

17. Payments were strictly by results, without a minimum limit, *viz.*, full ordinary wage was for full ordinary task, $\frac{3}{4}$ wage for $\frac{3}{4}$ task, $\frac{1}{2}$ wage for $\frac{1}{2}$ task, and nothing for less than $\frac{1}{2}$ task, the work being measured and added to the next day's task. No allowances were paid to non-working dependants, who were provided for by the Civil Authorities on Village Gratuitous Relief. One pice was given to mothers for their children in arms. No Sunday wage was given, and payments were made by-weekly.

On Scarcity Works a maximum wage of 25 per cent. in excess of the standard wage was earnable by the performance of a proportionate increase of task.

18. In September 1899, owing to the failure of rains there was a wide-spread famine throughout the district, and Taccavi loans, "distance test" and even the T st Works could not meet the increased wants of the relief workers. Larger Departmental Relief Works were opened.

LARGE PUBLIC WORKS.

19. (a) After the Test Works had proved that regular Relief Works were most necessary.

(b) Large Public Works were opened.

20. They were under the control of Public Works Officers.

No.

No delay—tools and plants were available. Some difficulty was, however, felt in procuring them at once when the number of Relief Works rose.

21. Yes.

5,000 workers.

Yes.

The pressure was relieved by drafting the extra people to other works.

22. Yes.

Full details will be given by the Executive Engineer, Ajmer Provincial Division.

Sirki huts in sufficient quantities were provided at all the works. Sufficient number of sweepers for conservancy purposes were appointed to keep the camps clean. Special sirki latrines were also constructed, and within a reasonable distance people were prohibited from committing nuisance. Special huts were provided for receiving patients suffering from cholera and small-pox; separate huts were provided for removing dead bodies before they were taken to the burial ground, and a special place was assigned within a reasonable distance where the dead bodies were buried. On larger works camp hospitals were also provided with sufficient number of huts for in-door patients, necessary stock of

medicines, and where the works were scattered within a certain radius the Hospital Assistant in charge of one of the works supervised the neighbouring Hospitals. The sanitation and the conservancy arrangements were at the camps, and were directly under the supervision of the Famine Naib-Tahsildar in charge of the camp, who used to comply with all the instructions given to them by the Inspecting Famine Medical Officers at each camp. Bantias' shops were detailed to supply food-grains to the labourers according to the rates fixed by the Tahsil. These shops contained all sorts of grains. Nerrick rates were posted on a board on each shop, and Bantias acting contrary to these rates were turned out of the camp with any penalty which the Revenue Officer thought proper. Huts were assigned to these shops by the Public Works Department Officers, and some chowkidars were also provided by them whenever it was considered necessary. In connection with the water-supply on works wells were taken at the camps according to requirements. Two chowkidars were appointed to guard against contamination. To each well labourers for drawing water were attached, who were provided with iron buckets. The labourers were generally drawn from Class B. For the distribution of water a special gang of women was employed to bring water from the protected wells to the pias, which were established at convenient intervals along the work area, a Brahman or a man of high caste being told off at each piao to distribute water to the workers. Pias were also established on Kitchens and Hospitals. The wells were disinfected with lime pan alum and with permanganate of potash.

23. No system of selection by tickets of workers for admission to works was tried at the commencement. Distance test was also insisted in the beginning, but residence on works was not compulsory.

24. It may be expected to serve an area of any thing up to 8 miles square, according to density of population, but in the Merwara District except near the town of Beawar itself you could not get 10,000 workers on to any one work except by camping them on the work.

25. No. The Civil Authorities consulted only as to arranging a programme of works, and fixing wages the technical and professional work being entirely carried on under the direct supervision of the Executive Engineer in charge of the Merwara Special Division.

26. A Famine Naib-Tahsildar was kept at each of the big works. With the exception of one Famine Naib-Tahsildar, who was a Revenue Naib-Tahsildar in the Beawar tahsil, all the Famine Naib-Tahsildars were selected and employed by the Commissioner Ajmer-Merwara, from Clerical and Cashiers' class. The salary was Rs 60+15 horse allowance per mensem. The Famine Naib-Tahsildar was general supervisor of the works in his charge and responsible for—

- (1) Prompt admission and register of applicants.

- (2) Classification and treatment of workers.
- (3) Provision of shelter.
- (4) Correctness and proper payment of wages.
- (5) Market arrangements and supply of food.
- (6) Adequate supply of good water and proper disinfection of wells.
- (7) Hearing and investigation of complaints.
- (8) Hospital and Sanitary arrangements.
- (9) Care of children and infirm persons presenting themselves at the works.
- (10) Prompt submission of accounts.
- (11) Immediate report to the Executive Engineer through the Sub-Divisional Officer of the outbreak of any epidemic disease.
- (12) Management of the Work Kitchen.

27. Yes. It rested with the Civil Officers in charge.

28. Gangs were formed, each numbering about 50-100 workers, and each with its own mate, muster clerk and distinguishing number.

Generally the numbers of one village or of one family were formed into one gang, and this arrangement has proved successful.

29. Class A Special—2 pies more than diggers.

Chittaks.

„ I. Diggers	. 20
„ II. Carriers	. 15
„ III. Working children (8 to 12 years)	. 8
„ IV. Adult dependants	12 (minimum wage).

The report of the Famine Commission, 1898, not available in the office.

30. Women were not put in Class I "Diggers," and I think the distinction was sound. There was no difficulty in keeping the proportion of diggers and carriers in gangs, the women kept their physique well, and the financial gain is obvious.

31. Yes.

32. The system was not tried in the district.

33. *Vide* Question 30. Work was measured off for each gang, and full task was demanded from the gang as a whole.

No.

The task remained the same throughout the famine without any change.

34. The works were carefully divided into circles, and the scale of wages on each carefully fixed and subsequently altered according to the fluctuations of the price of food-grains and other local considerations, and my experience lead me to believe that they were adequate, but certainly not unduly liberal.

The workers, as a whole, kept their physique pretty well, but naturally those who saved them-

7
selves and let the rest of the gang do their share of the common task kept better, while those who put the money meant for grain into tobacco or opium naturally fell below the general average.

35. Since 1st April 1900 Sunday wage was given, and during the scarcity period (1898-99) no Sunday wage was given, but wages on the scale noted in the Code were paid, but a maximum wage 25 per cent. in excess of the standard wage was earnable by the performance of proportionate increased task.

In this district I consider the only method during severe famine is to give the Sunday wage. Workers did as little as they could to earn the smallest wage they could draw. They would not have done extra work to earn an extra wage, and would only have suffered physically.

36. The minimum wage is not too high.

Fines should be continued down to penal wage.

37. No. Throughout the famine the system of fines, etc., was as described in Question 17.

38. In the beginning payment was made weekly, afterwards bi-weekly. It was afterwards made daily on almost all the works.

It was most desirable and practicable except on a few rather isolated works.

39. The labourers were paid weekly.

Yes, and therefore the daily payment system was introduced.

40. To the individual.

The above method.

41. No—the statistics are with the Public Works Department.

No.

42. Report of the Famine Commission not available.

43. Famine wages never exceeded:—

A. P.	A. P.	A. P.
-------	-------	-------

Man 2-0;	Woman 1-6;	Child 0-9.
----------	------------	------------

Children between the age of 2—14 were relieved at the kitchens, above 14 were taken as working children on works, and for the children in arms one pice each was given to their mothers. Weakly persons were classed as E, and employed on breaking clods or other light work, and were given minimum wage in cash.

In the case of weak persons the minimum wage was given irrespective of task, and this is preferable in my opinion.

44. No.

45. This system was not used.

They saved nothing on their earnings, but from what I have seen since the famine has ended, they certainly did not sell all they possessed before they came out on relief works.

Yes.

46. Under Commissioner's orders.

On the cheapest staple grain; maize or barley.

47. At each relief camp an admission office was kept with a flag over it. All seekers of work collected there, and up to 9 A.M. these were admitted, those coming after were taken on the next day. This work was directly under a Famine Naib-Tahsildar, who classified and sent them to the Sub-Overseer to be taken on the works.

The mustering clerk entered their names in the musters, and the mistri in charge pointed out the work to them. Gangs were formed, each numbering about 50—100 workers, and each with its mate, muster clerk, and distinguishing number.

Each gang had its own working area, where it assembled in the morning for muster at the appointed time, namely, 7 A.M. in hot weather, and 8 A.M. in winter.

After muster had been taken the Public Works Subordinate visited each gang in turn, and fixed and set out the task for each, recording the same in his note-book reserved for this purpose, and informing the mates what was required of their respective gangs, each member of a gang being paid by the result of the work done by the entire gang. At 12 o'clock there was an interval of rest till 2 o'clock. At 5 o'clock the Public Works Subordinate visited each gang again, measured the work and recorded the same in his measurement book, and informed each mate of the wage earned. An evening muster was taken, and the gangs were paid the wage earned for the previous day, and the work was closed between 6 and 7 P.M.

In the evening the sub-overseer called the moharrirs (1 to 10 gangs) and muster clerks (1 to 10 gangs) and had the wage earned by each gang, as per result of work measured, entered in the muster rolls, the moharrirs filling in the abstracts and preparing Form D. VI, showing the amount to be paid next day to each of the gangs in their charge. After check with the Muster Rolls the sub-overseer countersigned these, and forwarded the counterfoil to the cashiers. On the following morning the cashier placed the amount earned by each gang in separate money bags, each bag being marked with the distinguishing number of the gang to which it referred.

At 5 P.M. the cashier proceeded with his money bags to some convenient spot on the work area, where the moharrirs were assembled.

To each of them he gave his ten corresponding bags of money, taking a receipt for the same in Form D. VI. The moharrirs with the aid of the muster clerks, then proceeded to pay their gangs, the cashier visiting each in turn, and checking the disbursements that had just been made.

On the work on which the Famine Naib-Tahsildar was present, he also inspected payments, and satisfied himself by personal observation and enquiry that payments were regularly made, and on the other works in the "charge" the Famine Naib-Tahsildar's Clerk inspected the payments.

The dependants' children below 14 and above 2 years were relieved at the Work Kitchen, and the mothers of those in arms were given one pice.

The tools and plant were provided by the Public Works Department sub-divisional officers in charge. These were issued daily to the mate of the gang, who was held responsible for the loss.

At the close of the work these tools and plant had to be returned to the Public Works Department godown at the works. Latterly these were available in sufficient numbers.

The camps were generally located near the wells, which were kept clean by disinfecting with permanganate of potash, and Hospital requirements were all supplied by the Famine Naib-Tahsildar at the requisition of the Hospital Assistant, also food ration, clothing or other conveniences.

48. The Commissioner, Ajmer-Merwara.

Yes, the Commissioner only.

No.

49. Yes.

Just before the rainy season it was considered wise to get them back to their villages and ready to start agricultural operations as soon as the rains should break.

There was no trouble in achieving the transfer in the small scale on which it was tried.

SMALL VILLAGE WORKS.

50. These works relieved the pressure on Departmental Relief Works, and enabled the workers to be nearer their homes when the time for sowing operations was near. They proved a great help on the outbreak of cholera in certain camps, taking the workers who fled from them to their own villages instead of driving them to other big camps, which they might have infected also.

51. Repairing and improving small irrigation tanks generally of the 3rd and 4th class, and of digging and cleaning village wells used for drinking purposes, and improvements in village conservancy.

52. (a) No.

(b) By direct management under the Civil Agency.

(1) No.

(2) The Lumbardar was held responsible for the work, and was given task work at the rate of Rs4 for 1,000 cubic feet, tools, plant, contingencies all included in this contracted sum.

53. (a) The Civil Work Inspector marked out work on the spot.

(b) The mistries employed on works measured the work.

(c) The Lumbardar kept muster and paid wages himself, for which he was held responsible. He paid these wages out of the advance given to him by the Tahsildars.

200

No works were undertaken through the agency of land-holders, as contemplated in the North-Western Provinces Famine Code.

Directly under the supervision of the Civil Works Inspector, and the Famine Naib-Tahsildars. They were inspected periodically by the Famine Officer and by the Assistant Commissioner.

54. No.—The Code test system was only taken as a guide in fixing the amount allowed to each work, and the rate of wage to be calculated.

Scale of wages was as follows :—

	A.	P.
Men	1	6
Women	1	3
Children	0	9

No Sunday wage.

No relief for children in arms. No admission of dependants to the kitchens or to village gratuitous relief.

55. No.

56. The Civil Works drew the people from the large Public Works in the Beawar Division, but in the Todgarh Division they preferred to remain on the Public Works Department Works.

57. The Civil Agency small works were tried on such a small scale that I could form no definite opinion on the subject.

SPECIAL RELIEF.

58. No.

No.

59. Forests were opened in the scarcity period. They were controlled by Extra Assistant Conservator of Forests, and served the agricultural classes.

60. No.

61. Except a few in Beawar town there are no such people in the district, which is a purely agricultural one.

62. Nil.

63. None were taken.

64. Every facility was given to the people to take their cattle to good pasturages. Parwanas signed by the Collector were granted to protect them.

Emigration to foreign pasture grounds was the only resource, and even of those cattle who were so driven off only a small percentage returned.

64. No.

GRATUITOUS RELIEF.

66. (a) In January 1900, when the North-Western Provinces Famine Code was introduced,

dependants on Relief Works were classified as follows:—

Class E. Adults, both sexes.

„ F. Children 10–14 years, both sexes incapable of work.

„ G. Children from 7 to 10.

„ H. Children below 7, but not in arms.

„ I. Children in arms.

Of Class E those who were fit for light work were employed on works, and received a minimum wage in cash. The mothers of Class I received one pice a day for each child.

The other classes were fed in kitchens.

(b) On these works the dependants were not relieved. The workers relieved their dependants out of their own wages.

67. Relief by kitchens. This form was chosen as most economical and best suited to the district.

68. This report is not available in this office, but this relief was restricted to the following persons:—

(a) Idiots and lunatics.

(b) Cripples.

(c) Blind persons.

(d) All who from age or physical weakness were incapable of earning living.

(e) All persons whose attendance on the sick or an infant child in their homes was absolutely necessary, provided they had no relative able and willing to support them.

(f) To Parda-nashin women in district.

Only the people enumerated above were eligible, and their eligibility, vouched for by officials with local knowledge, was thoroughly tested.

69. Two poor-houses.

Beawar—On 1st February 1900.

Todgarh—On the 16th September 1900.

Jats, Gujars, Mers, Merats, Bhils, Balais.

No—the numbers in the Beawar poor-house never went beyond 1,000, and in the Todgarh one only up to 350.

Yes.

70. Some persons sent out to works from the poor-house when passed as fit to work were returned by the Public Works Department officials as incorrigible vagrants who would not work, but none were sent to the poor-house as a punishment.

71. Yes.

72. Fourteen kitchens before the rains of 1899 and eight after the rains had set in.

5 to 6 miles.

	Chittals.
73. For children 10 to 14 . . .	8
„ 7 to 10 . . .	6
„ 2 to 7 . . .	4

Meals were distributed twice a day. First, between 9 and 10 A. M. and the second between 4 and 5 P. M.

Yes.

No.

74. No Civil Kitchens were opened near the relief works within a radius of 5 to 6 miles.

75. It was restricted.

Admission to the kitchen was regulated by the issue of a ticket by the Patwari of each village to the children qualified for admission, who, on presenting this ticket, received another ticket from the Kitchen Superintendent, on which the number of the kitchen was punched, so that one ticket could not be used for two kitchens.

76. Ten chitaks of raw "dalya" for adults (males and females), and for the children the same as in kitchens.

The meals at first consisted of dalia of maize and salt, but the maize was found to be too heating, and the diet was changed in February 1900 into dalia of wheat and pulse. On the recommendation of the Famine Medical Officer in the month of June another change was introduced, and on two days in the week "dal" and "chappati" was substituted for the dalia. The proportion of dal of gram or "mung" used was five seers to one maund of dalia.

77. The Patwaris prepared the list, which was checked by Girdawars, Tahsildars and Naib-Tahsildars.

By the Famine Naib-Tahsildar every 10th day, and periodically by the Famine Officers, Tahsildars and Revenue Naib-Tahsildars.

78. Payment was made in cash weekly at the homes of recipients.

79. None.

None.

80. Brahmins.

No reluctance was shown.

81. School Pundits—and where Pundits were not available the Naib-Patwaris or paid Superintendents.

Girdawars, Famine Naib-Tahsildars, Famine Officers and periodically Tahsildars and Collector checked the accounts, food, sanitation, water-supply and the general arrangements.

82. No.

83. No.

	R
84. (a) Kharif, 1898-99 . . .	40,257
Rabi	45,090
Kharif, 1899-1900 . . .	71,187
Rabi, 1899-1900 . . .	69,900

2,26,434

(b) Remission, Rabi, 1898-99 390.

85. Suspension was dealt with in accordance with the rules laid down in Foreign Department letter No. 2917-I., dated 4th September 1895. The

item remitted was on account of Irrigation Revenue according to the rules and regulation relating to Land Revenue prescribed in Ajmer Regulation Book—(*vide* Chief Commissioner's Notifications Nos. ⁶⁷⁴/₅₆₃ and ⁶⁰³/₅₆₂, dated 5th July 1893 and 16th July 1895, respectively). The general capacity of the villagers also was determined by the Collector and the Commissioner by personal inspections.

86. As soon as the rain ceased and the hopes of the crops were over, but before the collection of revenue.

87. There are no such zemindari tracts in Merwara.

88. As far as I can say sufficient relief has been afforded by granting suspensions, the relief has not been abused, and has in most cases at any rate reached the right persons.

89. Outside the town of Beawar 80 per cent. of the population is entirely dependent on agriculture. After a failure of the rains of three successive seasons agriculture was absolutely at a standstill, and 80 per cent. of the population left destitute.

90. With the abolition of the ticket system emigrants from Marwar and Mewar under false names of villages obtained work on our Relief Works, and they could not be identified and expelled from our district, and our relief was excessive in this respect only.

91. All classes, and even a few Banias in the Todgarh tahsil.

92. My experience does not enable me to say.

93. (1) Yes.

(2) Not their resources proper. Some might have staved off the evil day for a short time by selling their ornaments, etc., but they could not have tided over the bad time, and would have had to accept State relief anyhow, and so, perhaps wisely, accepted the inevitable and kept their ornaments.

94. Yes.

95 (1). The tests of the Code are sufficient.

(2) The ticket system should be adhered to throughout the famine, and should not be abolished at any stage. I would further suggest that the Patwaris' ticket No. should also be borne in Public Works Department musters, as omission of the names of villages against the workers in the Muster Rolls gives room for fraud on the part of mustering clerks.

The ticket system is also a stop to the very frequent fraud of entry in muster sheet of fictitious names of workers who are absent only in days when the musters are checked.

96. The Patwaris of each village kept a Register of Births and Deaths, and informed the Collector monthly. At the Relief Works Naib-Tahsildars kept the records of deaths but not of births.

97. The Hospital Assistants in charge of works kept records showing causes of deaths, and my

experience of this famine is that the mortality was not in any way attributable to disease connected with unsuitable or insufficient food. Our mortality figures have been swollen by the large number of Mewari and Marwari immigrants who struggled across the border at the point of death, but the mortality among our own people has not, I think, been very high.

98. There was no complaint of impure and insufficient water-supply, and no mortality was traced to this source.

Yes.

Once a week at least.

99. A radius round each camp was marked out with flags, beyond which all persons had to go for purposes of nature. A regular staff of sweepers was kept to sweep the camp and generally clean up. Trenches for the burial of the excreta and sweepings were carefully regulated, and the dead either burnt or buried at a sufficient distance from the camps.

Segregations Hospitals for all infectious diseases were put up at a safe distance from the camp.

A regular staff of sweepers was kept, and certain of the inmates were also told off to sweep and clean the poor-house and its enclosures. Separate latrines for men and women were built connected with the main enclosure but some way off, and were attended to by the sweeper staff. Quantities of disinfecting powder were used to keep the place clean. Infectious cases were immediately removed to separate hospitals away from the poor-house.

The water-supply was well looked after on all the kitchens. The children were only allowed in just before meals, and turned out again immediately afterwards, and the kitchen enclosure was swept out and cleaned after each meal.

Yes.

The Assistant Surgeon and the Famine Medical Officer.

100. (1) Yes

(2) Yes, and the cases disclosed were punished.

101. The powdered bark of Khajra (*Prosopis Spicigera*) was sometimes mixed with the grain (atta) to increase the bulk of the bread. It usually produced diarrhoea when continued for any length of time, but was mostly used only occasionally.

102. Yes.

The numbers fluctuated, and many cases were never discovered or actually proved, but at one time we had 32,000 Mewaris on our works.

103. No statistics were kept, but I am confident the mortality returns during the famine will be largely in excess of the actual diminution in the population of the district.

104. They were made over to their friends or relatives, where possible. The few remaining ones were Hindus, and were made over to Daya Nand Orphanage, Ajmer. None were officially given to

Missionaries, but they collected a certain number through their own agencies.

105. None to offer.

106. No.

106. (a) Weekly returns of imports and exports were received from the Station Masters of the only two stations in the district.

Yes.

Assumed consumption of the people during 12 months,	Import.	Proportion.
10,00,000	15,00,000	1½ times.

But a considerable portion of the imports went to Deogarh and other places in Mewar territory which draw their supplies largely from Beawar.

107. No.

108. No such change took place.

109. No.

110. During the period of scarcity the Ajmer Famine Code was in force. Since January 1900 the North-Western Provinces Famine Code was brought into force; as far as the principles of the North-Western Provinces Famine Code are concerned no departure was allowed except in matters of detail where the local requirements made it necessary.

111. Yes.

Yes—Military pensioners were employed a Barkandazas.

No.

112. The non-official agency was made use of in supervising the poor-houses, in organising the Charitable Committees, and in collecting the subscription.

Yes.

Yes.

113. Practically the entire rural population of the district was destitute, and number seeking relief was not affected by any of the changes mentioned even where such changes were made.

As regards the death-rate change (a) was never introduced and (b) was never changed; (c) was carefully watched and altered on the first sign of real deterioration of physique long before an increase in mortality took place; (d) remained the same, and had no effect as far as I know on the mortality; nor had (e).

There was no disorganisation and very little wandering.

114. The District of Merwara has a rural population consisting of Mers and Merats who, for the purposes of social union, observe no distinction in dining and smoking together, nor have they any prejudices against eating food touched by Hindu or Musalman, excepting those of the lowest class and therefore the massing of the people on large

works did not tend to disorganise family life or to weaken social restraint or to relax morality; as far as it was possible huts for the low classes were in most cases kept at a safe distance, so as not to offend the social prejudices of the preponderating Mer and Merat classes on works. Nothing more is needed.

C. T. DUCAT, *Captain,*
Assistant Commissioner, Merwara.

day fixed for the opening of a test-work, either I or the Divisional-officers concerned proceeded to the spot and co-operated with the Department of Public Works, giving them such assistance as they found necessary. The labourers were all admitted freely and allowed to form themselves into village gangs as far as possible and, in a few instances, into family gangs. Each gang had its own headman in whom the members had confidence and through whom they agreed to receive their wages. He had for his information and reference a nominal roll of the coolies headed by him. The labourers were not classified except on the single test-work which was conducted on the task-work system and on which the system of classification ordered in G.O., No. 514, dated 25th May 1900, was adopted. The workers were allowed to earn wages (subject to certain maximum) sufficient for their own maintenance and the support of their dependants who were consequently not given any relief separately. The famine tools which were stored at three large central depots in the district were taken by the Department of Public Works to the respective work spots in such quantities as were found necessary. Tools were issued by the overseer to the coolies through their headmen whose receipts were obtained. In the cases in which the villages of the workers were not very distant and the overseer and the maistry could trust the headmen, the coolies were allowed to take the tools home every evening and bring them the next morning. In other cases, the tools were left at the work-spots by each gang at the place assigned to it and were looked after by a chowkidar. Work which would entitle the coolies to full wages was marked out at the task-work carried out at Betamcherla; but on the other works conducted on the intermediate system, the overseers were asked to instruct the headman of each gang as to the work which should be turned by it to enable it to earn the maximum wage. The work of each gang was carefully measured by the overseer in charge every evening and the measurements were recorded by him and the wages due to each gang were also calculated and noted. Twice or oftener every week payments were made by the overseer to the headmen of the respective gangs in the presence of a few of the members of each gang from the Imprest allowed to him and the headmen distributed the wages to the coolies. The proportion generally agreed to by the workers among themselves in regard to the division of the wages among men, women and children was 3 : 2 : 1. The overseer in some cases used to be present at the distribution and help the coolies where necessary in regard to the calculation of the wages due to them. He had also sufficient copper so that there might be no difficulty in the payment on the spot of the exact amount due to each cooly or set of coolies.

There was no fining in accordance with any prescribed scale, but if the outturn was poor, the wages were proportionately low. The water available in the vicinity of the works was generally good and no steps were taken to

conserve it. Where the water sources were distant, arrangements were made to have water carted to the work spots by coolies. None of the laborers resided on the works and no arrangements were needed for hospital requirements.

(48) Tasks and wages were stiffened under the Hookooms of the Board of Revenue (Famine Commissioner)—B.P., No. 323, dated 7th July 1900.

In no instance were they relaxed.

I never acted in anticipation. Please *vide* also answer to question No. 27.

48. Under whose orders were tasks and wages stiffened or relaxed, (i.e., the Collector, the Commissioner, the Famine Commissioner or the Local Government?) Had the Collector or the Commissioner power to issue orders independently or had he to refer to higher authority. If he acted in anticipation of sanction was he often over-ruled?

51. Were arrangements made at any time to draft people from large public to small village works; what was the occasion calling for transfer; and with what success was the transfer achieved?

51. No.

SMALL VILLAGE WORKS.

52. What part did the small village works play in the scheme of relief?

52 to 59. Small village works were not undertaken as test or relief works.

53. What classes of works did they include?

54. Were they conducted—

(a) under the supervision of the Public Works Department,

(b) under the supervision of the Civil Agency,

(i) by direct management,

(ii) through landholders or by means of other non-official agency?

55. If conducted under (b) (ii) of the last question, what arrangements were made—

(a) for laying down the work,

(b) for measuring it up,

(c) for paying wages?

How far were the landholders and others responsible administratively and financially; and under whose supervision was the work done?

56. Was any attempt made to work the Code task system? What scale of wages was adopted? Was employment given to every one who wanted it, or only to special classes?

57. Was any system of selection of applicants for relief tried? If so, was it successful or not?

58. If large public and small village works existed close to one another, did either draw labourers from the other?

59. Did your experience lead you to form any definite opinions as to the desirability or otherwise of extending small village relief works? If so, please state them.

SPECIAL RELIEF.

60. Are there many aboriginal tribes in your district? Were special tests applied to them? Were they forward to take relief or had relief to be taken near their homes? How far were the measures taken successful?

60. There are a few aboriginal tribes in my district such as Chenchoos, Soogalis and Yanadis. No special tests were applied to them. They were not forward to take relief. Some Chenchoos represented to me that they wanted work. I asked my District Forest-officer to employ them on light line clearing and fire tracing work. The Chenchoos, however, would not do even three hours' work for three annas